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'Power of Communication'

"THERE is a hunger in people to be understood—and there is a hunger in them to understand others. Man is constantly striving to increase his knowledge of man and to improve his ways of communicating this knowledge". Thus opens the foreword of the official programme for the 1955 Industrial Health Conference held from April 23 to 30 in Buffalo, New York State, issued to members of the American Association of Industrial Nurses, one of five national organizations participating in the conference. We feel this message to be both significant and appropriate to our own situation in this country and we therefore reprint it in full.

"A meeting of minds and spirits among the people of the world holds in it greater power for good than the mightiest bomb holds within itself for evil. In the past half-century miracles have been brought about in new ways of communication. From our living rooms and offices we can, in a matter of minutes, talk with a man of a different creed, colour and culture, across the world; thus, we begin to learn that in our basic personalities we are alike. The man with a message can at once, by the magic of television, enter millions of homes. The printed word in hundreds of forms is abundantly available to people in every circumstance.

No substitute can ever be found, however, for the ancient, yet most modern way of communication—of one person talking to another. Here the magic lies, not in the means of communication, nor in our knowledge of languages, but in our underlying understanding and in our hunger to understand better. The language of the heart, born out of a sensitiveness to the needs of others, is a most powerful force through which to communicate skills and knowledge.

To the industrial nurse the art and science of communication have become of increasing importance and usefulness. The work of protecting and promoting health is now an integrated part of production—no longer isolated as a separate, little understood, function. The nurse has newer and broader relationships with management, the physician and others concerned with the safety, health, morale and productive capacities of the worker.

The nurse's ability to understand the purposes and problems of others and to communicate his or her own to them through the written and spoken word, measures the success of industrial nursing's part in production.

The nurse's responsibility towards the worker has also increased as knowledge of disease, injuries and treatment, and of man himself, has increased. Not only is it necessary to keep abreast of technological advances but also to understand the impact of psychological, social and similar factors on the personality of the worker. We are more concerned with restoring a hand to usefulness than with treating a hand wound. People come to the medical department with physical hurts and ills, but every industrial nurse knows that often the real trouble lies deeper.

Before we can communicate our skills through service, and our knowledge through our counsel and the printed word, there must be understanding. It is a basic part of communication. A public relations analyst states: 'good public relations is 60 per cent. listening and 40 per cent. telling'. This formula is especially applicable to industrial nursing. It is the art of communication at its best and is at the very heart of our work. It is fitting, therefore, that the subject *Power of Communication* is the theme of our 13th annual conference. Understanding must underline whatever we do, whatever we teach, whatever we try to communicate in any way. These conferences promote that understanding. They provide opportunity for us to communicate with each other and with our allies, in sharing our experiences, in learning from each other, and in pointing out better ways for doing our part in the great world of industrial health."

Industrial nurses in our country are also aware of the importance of "listening and telling", and machinery for both is provided through activities sponsored by the Occupational Health Section of the Royal College of Nursing. There are now 33 Occupational Health Groups in industrial areas of Great Britain and Northern Ireland, at whose regular meetings members can share experiences and discuss problems as well as listen to speakers on a variety of subjects. Where numbers are insufficient to form a Group, local representatives are appointed to keep other members in touch with the activities of the Section;

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an area meeting is held at least once every year in each of the 10 areas for which representatives are elected to membership of the Central Sectional Committee, which is responsible to the Council of the College for the conduct of the business of the Occupational Health Section. Refresher courses and conferences, both national and international, also provide the nurse in industry with opportunities to listen and to talk about her professional interests. In this issue we publish three lectures originally given at meetings of this kind, with other items of special interest to occupational health nurses.

At national level the Occupational Health Section of the College is represented by its secretary, Mrs. I. G. Doherty, on the Industrial Health Advisory Committee of the Ministry of Labour. Occupational health nurses are also represented on the Nursing Services Committee of the International Council of Nurses and have participated in the three most recent international congresses on industrial medicine arranged by the Permanent International Commission on Industrial Medicine.

Topical Notes

Nurses on Advisory Committees

MISS B. N. FAWKES, principal tutor, The Middlesex Hospital, and Miss G. M. John, S.R.N., S.C.M., of Swansea, Glamorgan, are the two new nurse members appointed by the Minister of Health to serve respectively on the Standing Nursing Advisory Committee of the Central Health Services Council and on the Standing Tuberculosis Advisory Committee. Vacancies, one on the Standing Mental Health Advisory Committee and one on the Standing Tuberculosis Advisory Committee, remain to be filled as indicated in the list of appointments and re-appointments issued from the Ministry of Health on May 20, extracts from which are published on page 601. New medical members appointed include Dr. Stanley Thomas (East Ham) to the Standing Medical Advisory Committee and Professor W. C. W. Nixon, F.R.C.S., F.R.C.O.G., to the Standing Maternity and Midwifery Committee.

For Industrial Nurses

IT IS A POINT of considerable interest that the list of delegates and others attending the Royal Sanitary Institute Health Congress includes the names of six State-registered nurses among representatives of industry, whereas local authorities would appear to have sent only two—or at most three—members of their nursing staffs as official delegates. The list of official delegates also includes the names of two nurses from Georgia, U.S.A.—Miss T. A. Floyd, director, Division of Public Health Nursing, and Mrs. E. M. Fulcher, public health nursing consultant. Dr. Ira V. Hiscock, Professor of Public Health, Yale University, spoke on *Health Surveys* at the Conference of Sanitary Inspectors on April 28. For industrial nurses the highlight of the Congress was the meeting of the Occupational Health Section, held in the Winter Gardens on April 28, at which the presidential address was given by Professor R. E. Lane, Nuffield Professor of Occupational Health, University of Manchester. Making reference to the Minister of Labour's recent proposal for an increase in medical and nursing services in factories, Professor Lane emphasized the substantial contribution which doctors and nurses, properly trained and used, could make both to industry and to the national health. He continued: "The general demand for nursing service far outweighs the supply, and the employment of the nurse in industry should have regard to this. Dilution is essential. There is a place for the State-enrolled assistant nurse and for the adequately trained first-aid attendant, but this does not mean there is no need for the State-registered nurse who is essential to the efficiency of an industrial health service." The conference then heard a symposium on *Noise at Work* in which the speakers were Air Vice-Marshal E. D. Dalziel Dickson, C.B., C.B.E., senior consultant in otorhinolaryngology, R.A.F., who discussed the effect of noise on auditory acuity; T. S. Littler, Esq., Ph.D., director, Wernher Research Unit on Deafness, Medical Research Council, on *Noise—its Production, Reduction and Suppression*; and D. E. Broadbent, Esq., M.A., Applied Psychology Research Unit, Medical Research Council, who discussed the effect of noise on behaviour.

To Lucerne and Geneva

MISS F. G. GOODALL, C.B.E., general secretary of the Royal College of Nursing, will be attending the ninth International Hospital Federation Congress to be held in Lucerne from May 29 to June 3, when the theme is to be *The Mental Well-being of Patients in the General Hospital.* She will also go on to Geneva, where the International Labour Organization Congress will be held. She hopes to make many professional contacts during her visit abroad, and requests members writing to the College to address any confidential material to the deputy secretary.

Metabolic Unit Opened

THE OPENING CEREMONY of the Metabolic and Endocrine Research Unit at Little Bromwich Hospital was held in the charmingly decorated nurses recreation room. Mr. V. W. Grosvenor, LL.B., J.P., chairman of the Regional Board, welcomed Professor L. J. Witts, Nuffield Professor of Clinical Medicine, University of Oxford. He said that the Birmingham Regional Hospital Board were proud of this new Unit, which was an example of co-operation between the University and the Board. Professor Witts explained the importance of scientific research in the treatment of the patient and reminded the audience that digitalis was first used intelligently by a Birmingham

Professor L. J. Witts unveils the plaque commemorating the opening of the new Metabolic and Endocrine Research Unit at Little Bromwich Hospital.

physician. He also emphasized the important part played by the patient in the research team. Professor A. P. Thomson, Dean of the Medical School, thanked Professor Witts for coming to perform the opening ceremony, and Professor J. R. Squire gave a final vote of thanks to all those who had made the opening of the Metabolic Unit possible. (See article in last week's issue.) The audience then went over to the ward, where Professor Witts unveiled a plaque to commemorate the opening.

Nurses' Resignations

MEMBERS OF THE NURSING PROFESSION will have read with great concern the reports in the general press of dissatisfaction among a number of domiciliary nurses in Preston. We understand that the nurses threatened to resign unless their demands, made to the health committee, were met. Without details of underlying causes no comment can be made. Members of a profession should, however, be aware of those methods of procedure whereby in any such difficulty they may take steps to find a solution by means of joint consultation and thus avoid the necessity to take action that may bring discredit on the service in which they are engaged.

Industrial Health Advisory Committee

SIR WALTER MONCKTON, Q.C., Minister of Labour and National Service, presided at the second meeting, on May 19, of the Industrial Health Advisory Committee which he has appointed to advise him on measures to further the development of industrial health in work places covered by the Factories Act. The Committee considered the question of priorities for action in the field of industrial health and agreed upon certain lines of action to be pursued by the Ministry in relation to major health hazards such as dust, fumes and dermatitis. They also examined the available industrial health statistics and discussed the organization of industrial health surveys. They decided to set up a sub-committee to consider these related matters. The committee noted with satisfaction the intention of the Empire Rheumatism Council to carry out research into the distribution and causation of rheumatic diseases.

A bronze plaque to commemorate the occupation of the Southern Hospital, Dartford, Kent, by the United States Base Hospital No. 37—American Expeditionary Forces, 1918-19—has just been unveiled at the Hospital by a former American nurse, Mrs. Floyd A. Bradstreet, based at the unit at that time. Left to right: Dr. C. G. Henderson, C.B.E., medical superintendent; Miss K. Thomas, matron; Mrs. Bradstreet, Dr. and Mrs. Edward Fox (Dr. Fox was also on the U.S. staff in 1918), and Mr. E. J. Durrant, of the Hospital Management Committee.

Age Has its Rights:

ROYAL COLLEGE OF NURSING—ANNUAL MEETINGS AND CONFERENCE, LEICESTER

THE changing attitude towards advancing years is one of the important developments of the welfare state. Modern thought claims for the aged the same rights as for others, and an increased expectation of life is general throughout the western world. With the object of focusing attention on the new approach to the problem as viewed by the Royal College of Nursing, the subject chosen for discussion at the Professional Conference at Leicester on June 25 is *The Ageing Population*.

Every member should come prepared with some contribution to the open discussion. Whatever may be our own personal age group or our actual sphere of activity within the nursing profession, the question of advancing age is bound to impinge upon us at some time. To stimulate the thought of readers, we present some aspects of the subject.

There is the question of personal adjustment to older relatives, or to colleagues in our daily life. Sometimes, as employers of staff, we require tact in taking on older people and in deciding to what extent we can utilize their abilities without retarding the progress of younger staff. Our nursing service may be among the elderly who make demands on our patience and endurance. This may be a valuable training ground for more spectacular duties, and is generally most rewarding. Much progress has been made in caring for the chronic sick, either by nursing in hospital or in the domiciliary field.

The home life of the elderly is a charge upon the welfare state, and even in a world heavily burdened by taxation is receiving some measure of recognition. The independence of individuals, either in a home of their own, or as residents in a social centre, is still a crying need of the elderly. Membership of clubs provides comradeship among people of the same generation. All these matters are the concern of the social community, in which considerable voluntary work is done. They offer plenty of scope for the skill of the nursing service.

As we look at the records of the famous who are still prominent in their individual spheres—politics, the church, the stage, for example—we find that the ' glow of youth ' is preserved throughout advancing years because they are active and interested. Boredom kills quicker than disease, we are told. Remembering, therefore, the title of Lord Amulree's famous treatise *Adding Life to Years*, we must discover the best ways and means of allowing our older friends to be useful, to the extent of their powers. Preoccupation with disease or with failing faculties defeats this end.

It was in time of war that women became an economic necessity. It is the view of economists today that if production is to be stepped up men and women in the upper age groups should be kept in active employment considerably beyond retiring age, and should receive inducement to this end. Surely this is a striking example of the victories of peace. We even learn that if the National Women's Citizen Association gets its way, grandfathers and grandmothers will go back to training school with the youngster, in order that older workers can play their part in world economy.

A re-orientation of thought on the problems of increasing numbers of persons in the older age group is offered by the Royal College of Nursing for the consideration of its members. The vast resources of head, heart and hand of the nursing profession should be placed at the disposal of the community. Let us hear your views at Leicester. Have you made your reservation yet? Apply to the General Secretary, Royal College of Nursing, Henrietta Place, Cavendish Square, London, W.1, or to Miss M. Roberts, Branch Secretary, The General Hospital, Leicester.

Medical and Industrial Applications of Atomic Energy

by KATHARINE WILLIAMS, Principal Medical Officer,
United Kingdom Atomic Energy Authority, Harwell.

TWELVE years ago in Chicago, an event occurred which future historians may well consider one of the most momentous in the history of mankind: the first atomic pile was made to work and the era of atomic energy began. The infant atomic energy born that day has proved a lusty child and much thought and money has been lavished upon its upbringing. It has now reached the stage when it is expected to do some work and it is hoped that before long it will start to earn its living.

Before I deal with the subject of this work, however, I would like to consider what is meant by ' energy '.

Transforming Energy

This term ' energy ' is used in many connections and it may well be asked in what way atomic energy is different. In our own sphere, for example, it is customary to consider the role of energy-forming foods in the metabolism of the body. Our bodily temperature is maintained and our warmth derived by the metabolism or burning of substances containing carbon and hydrogen. Heat is one form of energy and is liberated by burning fuel. Man has used this heat for warmth and for cooking for hundreds of years, but the discovery of how to put this energy to work for him by turning water into steam and using this steam to push the piston in a steam engine is comparatively recent. In this way, heat energy is turned into another form which is called mechanical energy. Two more centuries elapsed before the next step was taken and the energy liberated by burning fuel was used directly by igniting a mixture of vaporized liquid fuel and air in the cylinders of an internal combustion engine.

Following the discovery of electricity, man also discovered how to transform the energy from burning fuel into electrical energy—this is carried out in our so-called power stations. In this form, energy can be carried long distances and tapped at will. It can be changed back into heat energy, light energy or mechanical energy. In our own homes, we are accustomed to use electrical energy for lighting; as heat, in our electric fires and cookers; as mechanical energy, in our vacuum cleaners and washing machines. Thus heat energy derived from burning fuel is used not only for warmth and light but, still more important, as a source of power. Modern civilization is dependent on power: for the propulsion of planes, ships, vehicles for transport; to drive machinery for its industries; to drive tractors, combines and harvesters for its food production; in short, for its standard of living. Countries which do not have or have not developed sources of power are the under-developed countries.

The fuels from which heat energy—which we have seen can be converted into mechanical and electrical energy—are derived, are those containing carbon, as in coal; or carbon and hydrogen, as in oil. The heat energy is liberated by a chemical process in which oxygen is used and carbon dioxide (or in the case of oil, carbon dioxide and water) and also heat are produced. What, then, is atomic energy and what is its importance ? I will remind you of the atomic theory. Every piece of matter is regarded as being built up of an enormous number of immeasurably small particles called atoms. These used to be considered so infinitely small that they could not be split up into any smaller parts. With the discovery of the radioactive element uranium and other naturally occurring radioactive elements at the end of the last century, it was learned that the atoms of these substances can split up spontaneously.

An atom is now considered to consist of an outer shell and an inner kernel or nucleus. In the chemical process which takes place in burning coal or oil fuels to obtain heat, only the outer shells of the atoms are scratched. In the atomic energy derived from uranium, the inner kernel or nucleus is cracked and split in what is called a nuclear fission process. In one case, we rub the shell; in the other case we crack open the nut ! And what a difference this makes. The importance then of this fission process is that when the nucleus is split open the energy obtained is tremendously greater in amount than that liberated from scratching the outer shell of the atom in the chemical process of burning fuel. Thus, as much energy can be derived from one ton of uranium as from a million tons of coal. This gives some idea of the tremendous possibilities of this new fuel. Moreover, although Nature has stored up coal and oil during a hundred million years, mankind is using up these reserves very quickly and needs to develop other sources of fuel.

Nuclear Energy Generating Stations

As you know, atomic fuels are being developed and atomic power stations are being built in which atomic piles as a source of heat to raise steam replace the coal feeding and burning equipment and boiler of the conventional power stations. The Calder Hall atomic energy, or as it is better called, nuclear energy, electricity generating station in Cumberland, now being built, may well be the first large-scale station of this kind. The first nuclear energy generating station should produce electricity at a price not very much more than a British Electricity Authority station. Lest you should think that we may have a surplus of coal in the future, let me remind you that coal is extensively used in smelting and in the chemical industry, and that in Great Britain we have only about one-third as much electricity per head of the population as in the U.S.A.; atomic energy fuels, therefore, will supplement other fuels but will not supplant them. I might add that the medical building at Harwell is, among others, heated from the Harwell pile: so my colleagues and I can, I think, fairly claim to be among the first people to benefit from heat obtained in this way.

This process of nuclear fission produces, in addition to heat and radiations, fragments of the uranium atoms, the radioactive ash or fission products, which are radio-isotopes. Radio-isotopes are the radioactive forms of the elements and have the same chemical properties. Thus radio-carbon or Carbon 14 behaves like ordinary carbon

Abstract of an address given at a refresher course for industrial nurses, held at the Royal College of Nursing.

but has the additional property of being radioactive. This radioactivity can be induced by the radiations in an atomic pile. So some radio-isotopes required for medical and industrial purposes are found among the many that occur as fragments of uranium, but others must be specially made in a pile. Some of the radioactive fission products, such as radio-iodine, radio-strontium and radio-caesium are widely used. In addition, the Harwell pile has been used to make many others. Last year, there were 3,138 shipments and these radio-isotopes are sent all over the world to some 38 countries including Africa, India, Australia, New Zealand and the South American countries.

There are also the possibilities of other important applications because these radiations can bring about changes in materials irradiated. For example, they can alter plastics such as polythene and make it more resistant to heat: for instance, polythene bottles after irradiation will withstand the temperature needed for steam sterilization and this would be very useful for pharmaceutical industries. The radiation from the pile or from the fission products could be used. Radiation can help, too, in making polyethylene and under some circumstances can double the output. It is possible that in the future there may be valuable uses for the radiations in addition to the present use of making radio-isotopes.

Making Radio-isotopes

I have mentioned that radio-isotopes are made in the atomic pile. The process is very simple. The material to be irradiated is sealed in a container which is then inserted into a channel in the pile, left there to be irradiated for as long as is necessary, and then removed Certain precautions must be taken—for instance, liquids must not boil, nor solids melt at the temperature of the pile. After removal from the pile, it may or may not be necessary to carry out further treatment of the radio-isotope. In some cases the radio-isotope can be shipped in its container direct to the user. In other cases, it is necessary to purify and separate the newly formed isotopes. Medical users may want the radio-isotopes to be in a form suitable for injection and dispensed as a sterile solution in pyrogen-free water in glass ampoules or serum bottles. It may also be necessary to remove heavy metal impurities, add a buffer and adjust the pH of the solution; so chemical processing may be called for.

Radio-isotopes are used because they are sources of radiations. To the medical and nursing professions with more than 50 years of experience of the use of radiations, this sounds commonplace; indeed, X-ray technology, founded at the end of the last century, is the oldest and best-developed technology based on the use of radiation. The scope of radiography and of radiotherapy has, however, been extended by the use of these new tools. Moreover, apart from these, further uses have been found for the radiation. There is one very important application of radio-isotopes which was not available before: the use of radio-isotopes as tracers, which is having a profound effect upon research. Instruments are available which will detect amounts of radioactive material as small as a millionth part of a millionth of a gram, so that substances containing radioactive atoms can be detected as much as a thousand million times better than others. In the detection, too, no damage or harm is done to the material. This tracer application of radio-isotopes in research work is having a profound effect. It is compared in importance to the discovery of the microscope and has opened up new fields of investigations in medicine, physiology, biochemistry, agriculture, industry—many different paths of human endeavour.

INDUSTRIAL APPLICATIONS

Radiography

The oldest application of radioactive elements in industry is radiography, since radon has long been used for this purpose. The wide range of radio-isotopes with radiations of varying powers of penetration enables industry to choose the one best fitted for the job. Thus radio-cobalt is used when two to six inch thicknesses of steel plate are to be radiographed; radio-thallium is suitable for light alloys and radio-iridium occupies an intermediate place. These radiographs are used for testing welded boiler plates and steam pipes. In examining welds a small source can be placed along the pipe and a film in a flexible casette holder can be wrapped around the weld and given a 15-minute exposure. After developing, this can be shown to the welder. In this way faulty welds are quickly shown. You will appreciate that this radiography is becoming standard practice as it gives the same type of aid in industrial diagnosis—revealing fractures or gas bubbles in castings, foreign bodies in mechanisms, fractured parts in machinery—as we seek in medical practice. A shadow is shown on a film in the same way as with X-rays in medical diagnostic radiography.

One interesting application has been to show up fine surface fissures and cracks in the surface of a metal used for aircraft propellers. A solution containing radio-phosphorus was spread uniformly over the metal surface and then a film was put on it and left for a time. The liquid radio-isotope had sunk into the cracks and when the film was developed, the cracks showed up as black marks.

Radio-isotopes can also be used in awkward positions as, for example, under water, or inserted inside a small pipe. The source can be taken to a large and complicated piece of machinery, obviating the necessity for dismantling the machine and bringing the parts required to the X-ray apparatus. They can be used in the open, since no electrical supply is needed. There is no maintenance. They are relatively cheap. The main disadvantage is a long exposure time; but unlike medical practice, this is not usually a serious disadvantage to industry.

Radio-isotopes as markers

On account of the extreme sensitivity of detection, radio-isotopes are used as markers. Thus the flow of water or oil in underground pipes can be followed on the surface if a minute quantity of a radio-isotope is added at some suitable point. This makes it possible to use them as leak detectors. Radio-sodium as a solution of sodium carbonate can be put in a leaking water main and detected in ground water samples: even as small a leak as a pint an hour has been found in this way. As markers too, they are very valuable to the oil industry. The same pipeline is used for different grades of oil and it is important to know when the next grade arrives at a distant point so that it can be sent into a separate tank—also whether any mixing of the oils has occurred *en route*. Unless this is known, it may be necessary to downgrade quantities of fuel. When the next grade of oil is pumped into the pipeline, a radio-isotope is injected at the same time and this heralds its arrival further down the line, while any spread of activity indicates the extent of the mixing.

In sewage treatment plants, it is necessary sometimes to know the hold-up time of sewage in the settling tanks and radio-isotopes have been used as markers. In Germany, studies of the flow of water in channels, rivers and storage basins associated with dams in valleys have been carried out.

You may have seen a recent account in the press of the use of a radioactive isotope, made up as a sand, to study the movement of mudbanks in the Thames estuary. It is important to know how these are affected by tides, so that

channels can be kept clear of silt for the passage of shipping and to take excess water at high tides so that flooding of low-lying areas can be prevented in future.

Ethyl bromide containing radio-bromine has been used in France to test for leaks in pressurized long-distance telephone cables and may be of value for leaks in gas mains. Investigations such as these would be extremely difficult and in some cases impossible without the use of a radio-isotope as a marker.

Process control

Radio-isotopes have been used for a variety of process controls, for example, problems of mixing. In the manufacture of a cattle food, a very small quantity of vitamin is added to a large bulk of foodstuff, and the even distribution through the mass is important; but you will appreciate the difficulty of ensuring this! Therefore, a small trace of radioactive salt is added to the vitamin before mixing, and by using a counter to check the activity, the mixing can be controlled and checked when the food is passed on to a conveyor belt.

Control of strip thicknesses

The thickness of sheet steel, brass, copper, paper, cardboard, plastic film, tinplate coatings on steel strip and all kinds of strip as it comes from the rolling mill, can be measured by placing a radioactive source on one side of the strip and a counter to measure the intensity of radiation on the other side. The thicker the strip, the less radiation comes through. Thickness gauges of this kind are now used commercially for continuous thickness control.

Packet and level detectors

The same principle is used for empty packet detectors, level indicators and other devices. The beam of radiation is followed by a detecting device fitted so that it gives a signal—an alarm bell or red light or other signal—when the amount of radiation reaching it is altered. In this way, the process is continuously watched, and empty packets, half-filled tins, even one single tablet missing from a packet of aspirin can be picked out from the line on the moving conveyor belt.

Static eliminators

An interesting and very useful application has been the development of static eliminator. Static charges of electricity can build up on surfaces. Some of you as children may have tried running a comb repeatedly through your hair and then picking up tiny pieces of paper with the comb, or stroking the fur of a cat until sparks flew out of poor pussy! The danger of sparking can, as you know, be a very real risk if static charges have been accumulated on surfaces when there are inflammable gases present in the air, as in an operating theatre, for a spark can set off an explosion. Static charges can be very troublesome in industrial processes such as the textile and paper industries. If the surface of the cloth in the weaving of nylon and rayon, or if paper in paper making, becomes charged, it picks up dust and dirt as the charged comb picks up the little bits of paper. This produces dirty marks which are difficult to get rid of and detract from the value of the material. The static charge and resultant fog marking, as it is called, is easily eliminated if the air is made conductive by a radio-isotope, as the electric charge leaks away and the dirty marking is prevented. In a Birmingham hospital it has been suggested that a radio-isotope could be used in the same way to make the air of an operating theatre conductive and thus prevent the risk of an explosion from inflammable anaesthetics.

Industrial research

Industrial research has sought the aid of radio-activity. Problems of friction and wear as in piston rings, cutting tools and dies for wire drawing, can be studied; and if required, in association with lubrication studies. An iron piston ring can be made radioactive in a pile, or it can be plated with radioactive chromium, and when the surface is rubbed off, the radioactive particles appear on the cylinder wall and in the lubricating oil. By placing a photographic film on the cylinder wall and using a counter for the oil, the amount of wear can be measured very sensitively in a short time. The wear of cutting tools can similarly be measured. Messrs. Courtauld studied the distribution of lubricant along a nylon thread in the spinning process by adding to it a minute amount of a radio-isotope and then placing the fibre after spinning over a photographic film. When developed, the density of the shadow showed the distribution of the lubricant.

MEDICAL AND BIOLOGICAL APPLICATIONS

In the hands of research workers in medicine and biology, radio-isotopes in tracer studies have proved a most powerful tool. Inspired guesses can now be evaluated by accurate measurements; laborious chemical assays are replaced by simple physical measurements and the radio-isotopes are from one thousand up to one thousand million times superior to the orthodox chemical methods. The research worker can follow the actual path taken by the radio-isotopes. The amount given in a tracer dose is so small that it does not affect the physiological process being studied. Radio-isotopes can be 'built-in' to many compounds as a marker: radio-carbon, that is Carbon 14, is built-in to many sugars which are used in the study of carbohydrate metabolism, into vitamin A, into amino-acids, into plasma protein, to study their fates in the body. Radio-iodine, that is Iodine 131, can be built-in to human serum albumen and used for blood volume and cardiac output studies, into thyroxine for study of thyroid functions and disorders; tagged on to fat for the study of fat uptake by the gastro-intestinal tract, and on to di-iodofluorescein for locating tumours of the central nervous system. Radio-sodium, radio-potassium and radio-chloride are used in studies of blood chemistry: for example, of the absorption of sodium chloride and the mechanism of uraemia after surgical operations such as transplantation of the ureters into the colon. Radio-sodium has also been used to study the blood flow in muscles during exercise.

In agricultural research, radio-isotopes have been used to study the uptake of fertilizers by plants. In biological research one interesting example was to place a small amount of radio-cobalt on the backs of insects and then it was possible to follow their life processes both underground as well as on the surface. This method is promising for the control of pests which threaten crops and forests.

In radiotherapy, radio-isotopes have not brought about any dramatic changes, and their use is an extension of the familiar treatment of disease by X-ray and radium therapy. Iodine 131 is very useful in treating some thyroid diseases; phosphorus 32 is the treatment of choice for polycythaemia vera; colloidal radio-gold has been used for treating papillomatosis of the bladder and as palliative treatment of pleural and abdominal effusions accompanying metastases of malignant tumours; radio-strontium incorporated in a small applicator has proved valuable in treating superficial lesions of the eye and cornea; radio-phosphorus for superficial skin lesions. Then there are the large sources which are used for intensive radiation such as the Cobalt 60 therapy unit. It is possible too, to make radio-isotopes in the form of wire which has the advantage of flexibility and can be adjusted to the shape of surfaces. In some positions it is more suitable than radium needles.

Radio-tantalum as fine wire has been used for the treatment of eye conditions such as melanoma of the iris, for lesions at the base of the tongue and vaginal and oral growths. Radio-caesium which can be obtained from fission products offers to medicine a cheap and plentiful supply of sources which can be used instead of the scarce and expensive radium in radiotherapeutics.

Great benefits have already been obtained from the applications of atomic energy. What is the possible danger of atomic energy power plants? We believe that they can be designed so that they will be very safe and methods of making them even safer are continually being devised. Some types will be inherently very safe as they will shut themselves off when too great a rise of temperature occurs. There is no danger of explosion or of them going off like a bomb!

A really major accident to an atomic power plant could allow the escape of radioactive fission products into the air, which would be a danger down-wind for a short time over a limited distance. A very high standard of security from this possibility can be obtained by building the pile inside a large air-tight shell, and in the Dounreay station the pile is to be built in a large air-tight steel sphere. An accident is unlikely or the station would not be built; but even so, it is well to have such a safeguard. As with the British Electricity Authority power stations, a good supply of cooling water is required and this will be one of the considerations in planning the location.

How safe will it be to work in such plants? We believe it will be extremely safe for the workers as the piles are enclosed in very thick shields of concrete which screen off the radiations. In fact, it is easier to provide protection for large installations; thus, in hospital work, the use of powerful synchrotrons, betatrons, linear accelerators and beam units can be made very safe indeed for the operators. What about the safety of working with radio-isotopes? Precautions are necessary: all the more so, as radiation is not detectable by the human senses and these precautions are very stringent. The extent of the precautions varies with the radio-isotopes, but, in general, it consists in careful planning and design of the experimental or industrial set-up before a start is made, shielding, and measurement of the radiation. For the operators, the dose received each week is restricted in amount and should be measured by means of film badges, and there should be medical supervision for health control. In the atomic energy projects a good deal of effort and money has been devoted to ensuring the protection of the workers, and it is hoped that the experience already gained in radiation hazard control will be of value to other workers who will be concerned in the future so that adequate precautions will be taken. The dangers are known. The radiations can be measured. The users are forewarned; there is no reason to fear they will not be forearmed.

HUMAN RELATIONS WITHIN INDUSTRY

by PETER PRICE, Personnel Manager, British Oil and Cake Mills Ltd. (Scottish Branches).

THE term 'human relations' in industry has come to have an almost self-defeating triteness. Most people tend still to say "here is business on the one hand, here is our job with which we must get on; over there is human relations quite separate"; it is, too, the one sure subject where everybody knows best. It is the common error to assume that, while science and technology have advanced and methods of production have developed, the human factor alone has remained static during the past hundred years or so. Nothing, as we know, could be further from the truth. No achievement in the laboratory and no development by the engineer has achieved a change half so far-reaching as the change in the living and thinking habits of the working man.

Let us take some illustrations. In 1830, a short time in history, Lord Jeffries, himself an employer, ruled in court that "a single master was at liberty at any time to turn off the whole of his workmen at once if they would not accept what wages he chose to offer, but it was an offence in law for workmen to leave that master if he refused to give the wages they chose to require." Again, in 1839, a local Magistrates Court warned farm labourers that if they joined a union which was demanding a 10s. per week minimum wage, they would be imprisoned. They joined the union, and, a month later, were sentenced to deportation for seven years. A High Court ruled later that "The Law in this case has been most properly applied."

The humanitarian concepts of those times are well illustrated in the Commons debate on the 'Ten Hour Bill of 1834', which sought to reduce the working hours of children under 10 to eight hours a day. It was then argued that "such a Bill would sap the sturdiness of our children, encourage licence and abuse, and destroy the economic structure of this great country". Social and cultural standards also suffered from the devastating effect of industrial growth on society itself. While people were spread out sparsely over a wide area, the problems created by overpopulation did not arise. With the rapid development of industry came disease from lack of sanitation and inadequate housing, and maiming and death from uncontrolled working conditions.

Exceptional Employers

Employers at this time regarded the development of their new-found markets and the drive for production and profit as their only legitimate objects. They recognized no controls nor did they accept any responsibility to the individual or to society. The use of power, and the discovery of cheap labour markets overseas, created a commodity concept of labour in which workpeople were crudely exploited. There were, as always, exceptions to this general rule. Robert Owen ran his New Lanark Mills as a model to teach the world how the new industrial system could be made the instrument of standardized improvement in sanitation, welfare and education. Others, such as Leverhulme and Rowntree, were also among the few to see that environment makes character, that environment is under human control, and that industry could carry out its function of producing a profit only for so long as attention was paid to the needs of the human beings involved in the process.

This period of development had in it the very stuff

Abstract of an address given at an Occupational Health Section (Royal College of Nursing) study day held at the University of Glasgow.

of change. It created the opportunity, and the reason, for men to combine to fight in defence of their standard of living, and later to struggle more aggressively to improve it and to have a voice in determining the kind of life they should lead.

This fight has been a bitter one. Those who evade or underestimate this, handicap themselves severely in assessing and dealing with the present labour relations situation. Change did not come easily. The past hundred years, right up to recent times well within living memory, have been blemished by violent clashes in which many on both sides have suffered. It may be convenient to dismiss this period and the immediate pre-last-war period of economic depression as the ' bad old days ', but it is not intelligent. We are called upon today to deal with the psychology this background has created. In spite of improvements and changed attitudes, that psychology is still with us on both sides. It is the hard deep core of our greatest single industrial problem—how to work together in unity.

The Scene Today

Now, what is the present—shall we say, bird's eye—view of industry today ?

1. We have—not wage determination by ruthless employers—but comprehensive systems of wage negotiations, negotiating from strength on both sides, often with guaranteed minimum wages regardless of performance.

2. We have—not the convicting of trade unionists—but their elevation to high places in private and public industry, and in political life.

3. We have protection as regards working conditions not only for our children—now safely at school until 15 and 16, or later—but for everyone employed on factory premises.

4. We have volumes written and spoken, almost daily, about equality of opportunity for all, on the dignity of labour and of the rights of individuals as workers and citizens.

That, as I have labelled it, is the bird's eye view of the industrial situation, the view of that large number of people who, many for the first time, have become aware of industry, its conditions, and its impact on their own lives and well-being.

What, however, is the view of those who see the same things from a closer viewpoint, from within the working group or the factory ?

We see first too many managements and supervisors who, in spite of lip service to progress and to new concepts, have failed to adapt themselves to change, who still want to rule unquestioned and uncriticized; who prefer the more familiar methods which applied when work was scarce and labour plentiful and the boss was never wrong. Their discipline and authority having to be exercised in unfamiliar and frequently resented circumstances is uncertain, wavering, and often downright weak. This is frequently blamed on ' labour ' and on ' those trade unions '.

We see many of that age group of workpeople who worked under pre-war problems. We see the man who knew autocratic discipline and who felt insecurity and fear for his livelihood so deeply that he cannot accept these things as being past; his deepest industrial instinct is still to suspect and protect. He, precisely like some management and some supervisors, has not been able to cope with change—or rather with the speed of change—even those changes which he may himself have struggled to bring about. In his worker-union relationship also he is at a loss. In the old days he fought within his union, and as a part of it, for improved conditions, the shilling a week increase, the clocking-time concession, and so on. These were hard battles fought in a clearly defined ring with a familiar opponent. Victory was personal and in it there was something of self-respect and attainment and, perhaps, a little grudging respect for the opponent. Now the ring is perhaps too big, his union official has become Mr. So-and-So, and his wage increases are negotiated often before he even knows he has applied for one—a return to wage determination if you like.

The younger age group of workers have inherited present-day conditions in industry—and have known no other. The fear in the minds of their fathers is absent—and so it should be—but absent also is that sense of responsibility and self-discipline which hard-earned progress brings. (This is not confined only to industrial workers. You may perhaps see some of it in your own profession as in many others.) The young industrial workers' personal demands are increased but not at the cost of losing unlimited sweat. They are concerned not only with the size of their slice of the cake, but also with how it is served up. They baulk very easily at discipline, especially discipline for discipline's sake. The trade union to many in this age group is something they pay for, someone with a hat whom they send for when difficulties arise. They are not interested in long union branch meetings and the loyal fraternal pledges. It is not my intention in saying this to blacken the picture. These are the same young men who show character and discipline in time of war and who can be relied upon to meet emergencies. But in the industrial field today, what I have said is very often the case, although there is, of course, another side of the story.

As regards women at work, I hesitate to make too emphatic statements. My personal experience during and since the war is that women at work are probably more industrious than men when properly supervised and at the right job. When this is not the case, they are infinitely more rebellious than men, certainly more articulately so. My trade union friends tell me with varying degrees of emphasis that their women members are on the whole more difficult to deal with than men; doubly so when they have the bit between their teeth on some particular issue. They would claim, I think, that women bring a sort of social logic into industry which can be very disconcerting.

Having glanced now at the background and at the different elements and outlooks which make up the average factory group, we now need to ask ourselves—what measures are most likely to cause these various elements to co-operate and work efficiently together ?

Indiscriminate Welfare

We have, I think, been so anxiously concerned since the war with the urgency of our industrial and economic problems that we have been guilty of trying too many diverging approaches at one time. Threats combined with too many appeals; too much consultation around tables and too little on the factory floor or between management itself. Too much indiscriminate welfare not always reflected in well-being, and, in general, a rather confusing mixture of attempted democracy, paternalism and autocracy. We are reaching the stage, I suggest, when we will be forced to consider with less panic and with more realism the fundamental question of what makes people work and what are the best incentives.

First, do people like to work, naturally and instinctively ? If the answer to that is no, then let us be quite clear that industry's approach must necessarily be to pursue techniques and policies which will *induce* people to action leading to output, *against* their natural instincts. Wages and salaries must be kept exactly at the point

which will bring about the desired effect. The carrot and the stick must be skilfully used and labour must be as carefully utilized as any other commodity. The best aids to management in these circumstances are most likely to be the technologist and the production engineer, to simplify and develop the machinery of production; the physiologist to calculate stresses and strains on human material, the nurse and the welfare officer to protect and feed the workers and keep them warm and dry.

If, however, our instincts are naturally towards activity or work—individually creative or collectively constructive—then we must carefully consider whether we are going the right way about providing the outlets for this instinct and the industrial atmosphere in which this desire to work may best find expression and encouragement.

Traditional concepts on this question are hard to lose. The Old Testament belief that physical labour is a curse imposed on man for his sins affects many more people than read or believe the Old Testament. The Victorians believed that industry was a naturally unpleasant thing and that there was no point in trying to improve work or the place in which this unpleasant activity took place. For that outlook we are still paying severely. Of recent years, however, these views have been modified in many ways. It is now considered that some people, such as managers, professional men, craftsmen, may like to work and, of course—you and I. The basic belief still survives, however, that most people *do not work willingly* and that money is the most powerful incentive; that is the basic keynote to almost the whole approach of industry to this problem of labour relations today.

Now, modern research and a good deal of recent industrial experience has shown that these views and that outlook are questionable—and it is most important that this should be known and thought about.

Work Motivation

One of the early important pieces of research into work motivation was the Hawthorne experiment. This experiment, conducted by scientists and industrialists, *with no axe to grind*, was started by the Western Electric Co. of America, *with a view to improving production*. It is important to remember this intention. That is what the company paid its money for. The main conclusion they got, after intensive, lengthy research, was that a factory must be regarded as performing two functions; first 'producing goods', and second 'creating and distributing human satisfactions among the people under its roof'. Investigators found that these two functions were so closely connected that they could not be separated without violence to the facts. They also found that high wages did not mean high output or morale; 21,000 workers placed wages six down on their list of important things. In firms with a boss who was disliked, the need for a good boss was much higher up the list than wages—as were security, steady work, opportunity for advancement, etc.

Other more recent surveys, at Lucas Ltd. with 17,000 employees, at an ordnance factory with more, and in various smaller groups, have also shown that wages, *after a certain point*, are placed well down the list of priorities, fourth down, for example, in a list of seven questions about what people want from work, and 27th down in a longer list in another case. The law of diminishing returns applies to all material incentives — that is to say, as the reward increases, the desire for further reward decreases, until money in itself ceases to be effective as a spur—for example, absence increases as money becomes secondary to leisure or time off; indiscipline grows as earnings rise (accompanied sometimes by fatigue), and so on. It is not suggested that money is unimportant but it is of less significance than has hitherto been thought. Dr. J. A. Brown, in his book *The Social Structure of Industry* puts forward the following three statements as being nearer the truth:

1. Work is an essential part of man's life since it is that aspect of his life which gives him status and binds him to society. Ordinarily men and women like their work, and at most periods of history always have done so. When they do not like it, the fault lies in the psychological and social conditions of the job rather than in the worker. Furthermore, work is a *social* activity.

2. The morale of the worker (that is, whether or not he works willingly) has no direct relationship whatsoever to the material conditions of the job. Temperature, lighting, time and motion study, noise and humidity have not the slightest bearing on morale, although they may have a bearing on physical health and comfort.

3. There are many incentives, of which, under normal conditions, money is one of the least important. Unemployment is a powerful negative incentive, that is to say, it is feared not only for economic reasons but because it cuts man off from his society.

Normal Provisions

I should like to say a further word supporting Dr. Brown's views on material conditions of work. True welfare policies recognize fundamentally the rights of the human being. Certain things are essential to human dignity. Clean working conditions, decent wash-basins and cloakrooms, and an adequate health centre. These things should no longer be a subject of management self-congratulation nor need they in fact be labelled 'welfare'. They should be provisions as normal as an engineer's bench. The pendulum has swung very fully in this matter and heaven forbid that it should swing back; the more real possibility is that the pendulum may go too far where too much is done *for* workpeople and not enough *by* them to maintain self-respect.

Managements, I think, must be much more self-critical and self-disciplined as regards welfare. Is the canteen really being patronised? If not, close it. There may be a real demand to get it back and use it. Has the 10-minute rest pause become a half-hour tea break? If so, abolish it and demand a square deal. Is there a community sports club which might serve the purpose better than the factory club? The great danger is that welfare can become a substitute for good management and where leadership falls down welfare empires tend to arise. Welfare alone will not maintain morale; on the contrary, indiscriminate welfare is likely to diminish it.

To return, however, to our main theme, there are plenty of figures and productivity council reports indicating that industrial performance in this country is not so bad as has been made out. There is really little room for self-congratulation on this, however, because we have survived only in terms of low social standards; the flow of material goods from our factories is acceptable only in terms of too limited demands and the too low material

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standards which usage and custom alone have made acceptable, indeed traditional, to our people.

The responsibility for these low standards cannot fairly be placed at the door of the manual worker except insofar as he accepts them. It is the technologists and industrialists who must alter their targets, who must make a greater effort to make machines serve men and give priority to the technical development of industry on a much more highly geared level. This is not merely a possibility, the knowledge is there and the example is there as to how to do it quickly and well. In America, output per man-hour is often more than double that of Britain without, as many productivity reports point out, men having to work any harder than in Britain. What is required in greater measure from our industrialists is the will and the drive to do it.

Management

We come then to management, that strata of people who are most deeply concerned with the problem of how to get people to work hard harmoniously in industry. Are they themselves working hard and efficiently? I think the answer to the first part of that question, that of working hard, is yes. The average manager, struggling with his traditional concepts of what a manager should be and do —trying at the same time to cope with unforeseen and unfamiliar circumstances—is working hard. He lives with his problems and the less able he is to deal with them, the more he lives with them. This type of manager is one of industry's biggest problems. He demands respect for his status—often regardless of his qualities as a man or as a manager. He prefers around him, and will sometimes promote, the respectful mediocrity rather than the possibly less respectful but more able man. This is an understandable thing. It is the same instinct as was mentioned earlier in connection with the factory worker of the same age group. The instinct to suspect and protect. Suspicion of new attitudes and talents; and protection by grouping around him more familiar and possibly less competitive people. Top management is aware of this problem and places emphasis on it by recruitment and by management training. In considering the dynamics of the present industrial position, however, this existing factor cannot be disregarded.

Let us look now at the common or garden worker, that familiar target for criticism and sometimes condemnation. So much has been said about him that there is nothing new to be said. There is, however, the need to select from this mass of material a few of the possibly more important things in the management of workpeople. First, it has been suggested that management accepts the proposition that workpeople will work and do, in fact, like to work. Acceptance of this idea—indeed, the very consideration of it—is no small thing. It is, in fact, asking managers and supervisors to make an almost revolutionary alteration in their own mental processes, and to undertake an equally drastic survey of their own methods and approach. Such a self-survey is in itself badly needed and cannot but do good.

Order, Leadership and Authority

Secondly, much more discipline is required in industry. I do not want to be misunderstood on this; it is not being suggested that supervisors should have returned to them unchallenged and autocratic discipline, right or wrong, with the sack as the final sanction. To do that means chaos, and those who are disposed to want unemployment as a means of enforcing discipline are asking for a struggle of two sides in which both must lose. There is, however, in any group of people, and particularly in working groups, a strong desire and need for discipline of a clearly understandable nature and applying to everyone alike.

In industry, as you may well have seen, there is often actual unhappiness bordering on illness in the absence of discipline. In the history of society, people have never failed to respond to leadership and in war morale rests firmly on unrelaxing discipline and is lost without it. There is a deep human need for order, leadership, and authority. Discipline is part of this and is rejected only when it becomes tyranny. The function of the supervisor in industry is to supervise, to instruct and to convey instructions. If trouble is taken to see that these instructions are understood and care taken to see that the instruction is in itself reasonable and given in a reasonable manner, then failure to carry out that order or evasion of it should be regarded as a serious challenge to authority, calling for a united management determination to uphold authority and to penalize strictly those who challenge it.

I know it will be said at this stage that trade union pressure is brought to bear on such matters. That may be so, but many of the disputes between unions and management on disciplinary issues are lost by management, not because the trade union case is right but because management methods are wrong. The average trade union official knows this well.

Discipline must have in it the element of leadership and faith in people. A supervisor or manager must show the capacity and desire to represent his workers' interests as well as insist that his orders are carried out. Above all, discipline must be seen to be uniformly fair and just. I am sorry to say such a simple thing—it may seem trite—but I am convinced that a good deal of our industrial friction arises from failure to observe this apparently simple rule.

In West Africa, where I worked and studied for a short time, the West Africans had a standard saying which they applied or not to their European bosses: "He is fair, he respects me." The men who earned that verdict were the only men who could successfully be strict disciplinarians. This rule, in my experience, has no colour bar. It applies to the steel-worker, the factory worker and the miner in this country as well as to the African native.

Summary

To sum up, I have suggested that:

(*a*) To improve human relations in industry we need a much more enlightened technical approach to work methods; the machine must take the place of man to a greater extent than ever before and people must have the incentive of working to possess a much larger amount of the things they produce, that is, a much higher standard of living.

(*b*) We need more dynamic leadership; managers who understand the nature of the change which is taking place in industrial relationships and who are capable and strong enough to do their job in existing circumstances and not keep trying to do it in terms of the 'good old days'.

(*c*) Less indiscriminate welfare and more discipline, much more discipline, based first on the acceptance of the idea that people will work and like to work if managed properly, and secondly, that discipline must have equity, justice and a deep regard for people as its essential elements.

Towards this end, this aim of creating an ethical structure on which personal relationship in industry may firmly rest, the nursing profession has much to give. However difficult and sometimes tedious the day-to-day work may be, you are, in yourselves, an ethical tradition, and privileged to be an example.

A THERAPEUTIC COMMUNITY—3

The Staff

by EILEEN SKELLERN, S.R.N., Sister of the Social Rehabilitation Unit, Belmont Hospital, Sutton, Surrey.

THE first two articles in this series described the work done at the Social Rehabilitation Unit at Belmont Hospital and the important part the patient plays in his own treatment. This article will consider the part the staff play in the organization of a therapeutic community. Everyday relationships and attitudes are an important part of treatment material, and because the real needs of the patients are being examined afresh, the staff work, attitudes and organization have altered during the past eight years of the Unit's development. This process of change has brought about its own problems both with the Unit itself and its relationship with outside bodies and professions. Some of these changes will be discussed in this article.

Value of Traditional Organization

The normal organization of a hospital ward is so well known it is accepted without question or thought. In most hospitals the sister is the head of her ward with staff nurses, nurses and domestic staff under her. She is responsible to the matron for the nursing staff; to the administrative officer for maintenance of the building and (sometimes) the domestic staff; and to the doctor for carrying out his instructions for the treatment of the patient. This well-ordered pattern based on a hierarchical social structure with well-defined relationships, at least within each hierarchy, if not inter-hierarchical, serves many useful functions. It allows each person to know the extent of her responsibilities and the degree of authority she possesses to carry these through. It allows each person to know to whom, and for whom, she is responsible. It provides an efficient service which, in times of emergency, such as death and acute illness, carries on regardless of the personalities filling the roles. It makes the patient feel safe and secure in times of personal anxiety when faced with severe illness and death. The staff wear uniform which not only distinguishes them from the patient, but protects the staff, giving them a sense of security when dealing with not only the patients' anxiety but the strain of staff anxiety too. It creates a useful barrier between staff and patient allowing the patient to feel dependent and have not only confidence in the person who is looking after him, but the added confidence that she is a nurse with all that this traditionally stands for.

It will be recalled that the Social Rehabilitation Unit is designed to help the patients suffering from character disorders—people who have severe behaviour problems by the ordinary standards of society. What then are some of the ingredients necessary to create a therapeutic situation where they may learn to understand and modify their behaviour and how do they contrast with the traditional organization of a hospital ward? Certain aspects of treatment will be discussed and their practical application considered with subsequent staff changes.

The usual process in hospital is to organize a service of doing things *for* the patient by the staff. This creates a basic attitude of passive dependency on the active staff which, at times of severe illness, is necessary to the patient's recovery. This attitude would not help the patient in the Unit. It is more important that he does things *with* others, participating in the running of the community. The first problem for the staff is this change in basic attitude, working *with* the patient rather than *for* him.

Learning Constructive Relationships

The previous article described some of the rationale for changing the attitudes of the staff toward patients who defy rules and authority. If the patient is to change his ways he has to stop and face the tensions within him. If he can manipulate those in authority to be angry, punitive or authoritarian he repeats the well-known pattern of his life. It is this aspect of a psychopath's difficulties which often makes it so difficult to contain his behaviour in a general or mental hospital where well-defined rules must be kept. The staff in the Unit have to learn to tolerate a good deal of personal criticism and attack in the early phases of treatment. As with the child of three-and-a-half, if the mother loses patience the child does not learn to control his temper. So, too, in the adult situation. The patient may try to provoke his discharge by repeatedly breaking hospital rules, for example, getting drunk, etc. If he is discharged then nothing is achieved but a repetition of the well-known pattern. If the staff and patients can be tolerant, without responding with the very normal impulse to retaliate or punish, then many patients at some time have to look at themselves, often for the first time.

Sharing Responsibilities

Active participation in treatment cannot be achieved by lip service alone. The patients must have sanction from the staff, and responsibility and authority to act delegated to them. Ultimate responsibility for the Unit lies in the hands of the medical director who is in turn responsible to the director and hospital management committee. Delegation of authority, of course, takes place in all hospitals but, because of the needs of the Unit, goes one step further here to the patients themselves. This poses many practical and emotional problems for the staff. Practical difficulties may be concern over hospital equipment and its care. But the staff can exert some controlling pressures, for they, too, use the community meetings and so have an outlet to express their concern. Emotionally, new members of the staff, for example, doctors, sister, etc., will inevitably have an inner struggle to learn to give up the position of authority they have worked for so many years to reach. They often at first feel extremely vulnerable to the patient's attack, being unable to retreat to an office, their uniform or an authoritarian attitude. However, if real authority is delegated to the overall Unit, patients must be sanctioned to make their own rules and codes of behaviour within the limiting framework of overall hospital rules. The

staff must carry through the implications and allow patients the freedom to bear more responsibility. It is frequently easier to obey or grumble against rules made by 'someone above', but much more difficult to propose policies and accept responsibility for their conduct from within. The patient with a character disorder has generally only a small degree of inner control and sense of social responsibility. If he participates with others in making policy for his everyday needs, this conscience may begin to develop. Despite the problems this poses to staff members, they soon learn how much more satisfying it is to their work to share anxieties with others, and far from lowering the prestige of the staff the reverse seems to happen, they are respected for what they are and the barriers are lessened, to the ultimate good of all concerned.

Free Communication

Another necessary ingredient in a therapeutic community is free communication. It might be said that this is the essence and life-blood of the Unit. If communication channels are blocked—like the blood vessels of the human body—breakdown occurs either in part in a given area or more completely. Disintegration would quickly follow if a complete breakdown occurred. If people are to communicate their feelings freely they must feel secure in the knowledge of the basic goodwill of other people, at the same time they have to be able to tolerate fair criticism if they are to see themselves clearly in the mirror. The social structure of the Unit is designed to make available as much communication between staff and patient, patient and patient, staff and staff, as possible, to be used in the psychotherapeutic treatment programme. Within the staff the structure is thus. The social therapists (nurses) have direct contact with both patient and doctor. They are responsible to him and the communications do not necessarily have to go through sister as in the usual ward organization. The sister joins the team of permanent staff of doctors, social worker, disablement resettlement officer (D.R.O.) etc., but is not the head of the nursing team, only an adviser and teacher to them in co-operation with the rest of the team. (This will be described in more detail in the next article.)

Communications take place in a variety of ways. They take place in a formal network of groups, community meetings, therapeutic groups, ward and work meetings, etc. Within the staff the network is designed in this manner: a daily staff meeting over morning coffee, two weekly staff meetings and daily tutorials given by one permanent staff member with a group of social therapists. Communication also takes place formally in two-person situations—doctors' interviews, social therapist and patient, sister and patient, etc. Informally the communications are just as important—gossiping etc. The aim in treatment is to help people express their thoughts and feelings in the formal group system wherever possible. The attitude of 'informing' outside, where to tell tales is felt to be disloyal, is worked through at least in part and so far as possible. This is an especially salutary lesson to those in trouble with the law but can also be a source of real conflict and anxiety to those patients with strong ties and loyalties to anti-social gangs. One problem for the staff in free communication lies in being aware all the time how the team can be split one from another by the tensions generated by both patients and staff. Many of the patients have had broken or disruptive homes and have learned one part of their way of surviving emotionally in a world of potential split relationships, to 'promote' this well-known pattern by using a splitting process to their own advantage. Much of this process is unconscious and when trouble does in fact break out they are frequently as anxious and insecure as they have always felt. The patient who says to a staff member "I can trust you and will tell you this fact about myself if you will promise not to tell the group or doctor", invests the staff member with a secret which could cause anxiety. All the staff, and many of the patients, too, soon learn it is wiser to help that patient tell the group than accept the confidence. Each staff member says "By all means tell me but tell the group too", or "I will listen to you but will not promise to keep your disclosure secret as information here is shared so far as possible". An emotional hazard for a member of the staff may be his or her own personal need to have the patient think she is better than other staff members. Again the analogy of the child can be used, where mother refuses the request for a sweet but father on separate inquiry says "All right, but don't tell mother". The child is left with a mixed sense of pleasure and guilt and the insecurity of knowing he can divide the parents if he wishes to.

These then are a few ingredients necessary to a therapeutic organization of a community doing this particular type of treatment. Some of the problems they pose for the staff have been discussed already. In conclusion a few words might be said about the teamwork of the staff.

The Staff Team

The staff are, broadly speaking, divided functionally into three groups: those dealing with resettlement like the D.R.O. and social worker; those dealing with socializing aspects of treatment within the Unit, for example nursing staff, instructors, etc., and the doctors whose prime focus of attention is the patient and all aspects of his problems. These divisions are primarily of function and main focus of attention, but in fact all the roles overlap each other and the social worker may find herself in the centre of internal problems, while the social therapist (i.e. nurse) may move out to the home in a particular instance. This free interchange, communication and sharing is one of the fundamental foundation stones of good teamwork. It is not possible to describe the work of all members of the team, but it is true to say that each member has had to make modifications of his work, attitude and thinking as a result of his working with other staff and patients. For example, the doctor does not wear a white coat or do formal ward rounds. Instead he actively participates in routine activities. He is known by his first name to everyone and because of this informal example of the chief of the team, it is possible for everyone else to do likewise.

Next week the work and problems of the social therapists and nurses and sister will be described.

The 'Nursing Times' of Fifty Years Ago

THE HEALTH OF THE NATION is the title of an article (published in the issue of July 22, 1905) which includes the following:

"A parliamentary committee (recently) collected evidence from all parts, which . . . gave some appalling figures as to the health of town-dwellers, especially children. Of 1,000 children examined in elementary schools, 32 per cent. suffered from defective vision, 43 per cent. from deafness, 19 from diseased glands, 9 from lungs, and 17½ from weak hearts. That is, *less than 12 per cent. were normally healthy.*

THE COLLEGE COUNCIL MEETS

May 1955

At the May meeting each year of the Council of the Royal College of Nursing, the Council elect the President for the ensuing year, and at the meeting last week, Miss S. C. Bovill, president, and matron of Cardiff Royal Infirmary, was unanimously re-elected for a further year, as permitted by the constitution. Miss Helen Dey, C.B.E., thanked Miss Bovill warmly for all the work she had undertaken during the past year, her sincere thought for, and loyalty to, the College and the Council, and the way in which she had graced the position of President. Miss Bovill thanked the Council members for all their support and their confidence in her as expressed by her re-election.

The Chairman of the Council, Mrs. A. A. Woodman, M.B.E., announced with great pleasure the news that the University of Manchester was to confer in July the degree of Master of Arts (Honoris Causa) on Miss L. G. Duff Grant for her services to nursing.

Cowdray Club Membership

A letter had been received from the Cowdray Club stating that it had been decided to waive for a limited period the entrance fee for members of the Royal College of Nursing wishing to join the club; also that for other nurses the entrance fee would be reduced. This was in order to encourage an increase in membership by nurses as there were a number of non-nurses seeking admission who could not be accepted until the nurse membership increased, in order to retain the ratio as laid down.

The British Federation of Business and Professional Women had informed the Royal College of Nursing that they had received a reply from the Ministry of Labour and National Service on the resolution on the subject of noise, originally proposed by the Royal College of Nursing, which had been sent forward from their annual general meeting. The Ministry of Labour had stated that with regard to noise in factories the Government had, in a white paper (Cmd. 9422) on certain recommendations adopted by the International Labour Conference in 1953, announced its acceptance in principle of the recommendation which called upon employers to take measures to eliminate or reduce as far as possible noise which constituted a danger to the health of workers. Though the Government did not consider it possible to legislate in the present state of knowledge, H.M. Inspectors of Factories did encourage employers to keep noise down to a minimum. The question of health measures in streets, shops and hospitals was the concern of other departments and copies of the resolution and the Minister's reply had been sent to them.

Another matter to which the Council gave special consideration was the work of nurses caring for the chronic sick and aged. It was realized that their work was both arduous and less obviously rewarding than other forms of nursing, while in many parts of the country buildings and conditions of work were extremely depressing and added to the difficulties; the nurses residential quarters were also far from ideal though many improvements had been achieved in the last few years. The Council agreed to seek fuller particulars as to the extent of the problem as it affected nurses in many types of hospitals and in domiciliary work, as a preliminary to discussing how far special consideration should be given to those undertaking this type of work.

Superannuation regulations had required careful study and the draft Consolidated Regulations of the National Health Service (Superannuation) (Amendment) Regulations 1950-1954 had been considered in consultation with Mr. A. C. Wood-Smith, M.B.E., representatives of the Royal College of Midwives and of the Chartered Society of Physiotherapy. It was mutually agreed that comments be submitted to the Superannuation Division of the Ministry of Health individually by the three organizations; the comments from the College had been duly forwarded to the Ministry. On the draft Superannuation (Local Government and National Health Service) Interchange Rules, Miss B. M. B. Haughton and Mr. A. C. Wood-Smith, on behalf of the College, with representatives from the Royal College of Midwives and the Chartered Society of Physiotherapy, had met officers of the Superannuation Division of the Ministry of Housing and Local Government to discuss the following points.

(*a*) Transfer Values: the draft interchange rules appeared to restrict transfer values to the Federated Superannuation Scheme for Nurses and Hospital Officers to those nurses entering employment in which the employer was a contributor to the Scheme. This was not a requirement of the National Health Service Superannuation Provisions and, up to the present, in regard to Local Government Superannuation the decision had rested with the individual local authority.

It was agreed that further representations should be made on this matter.

(*b*) Continuity of Superannuation Rights—Rule 2(5): this rule provided for continuity of superannuation rights in the case of a nurse taking a further course of training or study in preparation for entering another branch of the profession, provided she obtained the full consent of her employer *and* the approval of the Minister.

The College asked that the word '*and*' be replaced by '*or*'.

In addition the following points in connection with the Local Government Superannuation Scheme were discussed: the position of nurses and midwives employed by local authorities in an administrative capacity; the difficulty experienced by older nurses and midwives in obtaining employment under local authorities; the position of nurses and midwives who suffered a break in service due to ill-health or injury. The Ministry officials felt that these matters could only be dealt with by representation in individual cases, but suggested that they might usefully be discussed with representatives of the County Councils Association and the Association of Municipal Corporations.

Sister Tutor Section

The Sister Tutor Section report, presented by Miss M. E. Gould, raised some important discussion on the subject of nurses' indoor uniform as seen at State examinations and on the outdoor wear and unsuitable shoes of student nurses when undertaking domiciliary visits in all

weathers, in connection with their studies on the social aspects of disease. The type of shoes worn with indoor uniform and for domiciliary visits gave rise to interesting comments and several matrons spoke of the care given to student nurses entering training by orthopaedic and footwear specialists, in advising on suitable uniform shoes. The Council agreed to obtain further information about the difficulties and how these had been overcome in many hospitals.

Miss Gould then presented the Section's memorandum on Group Schools of Nursing, supported by Miss L. E. Delve, principal tutor, Horton Hospital, Epsom, and Mr. W. G. Jones, principal tutor, St. Audry's Hospital, Melton, Suffolk, who spoke on the parts dealing with mental and mental deficiency hospital training schools. The Council were extremely interested in the points raised, particularly on the value of group schools, or central schools for more than one mental or mental deficiency hospital, where at present there might only be a few students in each hospital, often with no qualified tutor. They also considered the proposed ' administrative nurse tutor ' for such schools of nursing and were particularly interested in the limitation of establishments in mental hospitals which, being based on all grades of staff, meant limitation of the number of student nurses accepted for training. The Council received the memorandum for further consideration.

Occupational Health Nursing Certificate

Miss M. Houghton, chairman of the Education Committee, announced that the Education Department were looking forward to welcoming in July members of a study group arranged by the Division of Nursing, Teachers College, Columbia University, New York. The Department would plan the professional part of their study visit.

As a result of the establishment of the Occupational Health Section, the title of the Industrial Nursing Certificate of the Royal College of Nursing had been reconsidered. The Education Committee recommended and the Council approved, that this should now be known as the Occupational Health Nursing Certificate.

The following examination results were announced: *Ward Sisters Course* (January to March, 1955): six candidates entered and four passed; one gained distinction in psychology in relation to ward administration and one was referred in this subject; one failed in the two subjects which comprise the examination. *Ward Sisters Course* (September to December 1954). ' Referred ' examination results (summary): five candidates entered for one subject (psychology in relation to ward administration)—of these, four passed and one gained distinction. One entered for the two subjects but failed in both.

The Public Health Section also presented a memorandum, on proposals with regard to the training and function of health visitors, which the Council agreed should be further studied. Miss E. M. Wearn reported that, following earlier representations by the Royal College of Nursing and subsequent meetings with other representatives of the associations, concerning the misuse of hormone preparations, the Council of the Pharmaceutical Society had now advised its members not to supply sex hormones or their preparations unless satisfied that customers were obtaining them on medical grounds, though not necessarily presenting a prescription. The Section also reported that the two last conferences for health visitors held during the annual congress of the Royal Sanitary Institute had been of outstanding interest, most ably conducted and with good discussions. A conference for domiciliary nurses and midwives held this year for the first time was, however, disappointing, and the Council agreed that a letter should be sent to the Royal Sanitary Institute with regard to this, together with a request that the College might be invited to make suggestions for the subject and speakers at future conferences.

Miss M. C. Marshall, O.B.E., A.R.R.C., presenting the report of the Scottish Board, announced that 12 representatives of Branches had been nominated to serve on the Local Advisory Committees of the Ministry of Pensions and National Insurance. Comments had been made on the draft National Health Service (Scotland) (Superannuation) Amendment Regulations and sent to the appropriate Department. The Scottish Board was grateful for the help and advice given by Miss B. M. B. Haughton and Mr. A. C. Wood-Smith. The two study days held in Glasgow and Aberdeen had been attended by approximately 100 people on each occasion and the last study day for the season was to be held at Elgin on May 28. The special course for ward sisters and charge nurses in the field of mental health had started on May 2 with 15 students. Visitors welcomed to the Scottish headquarters had included Miss J. G. Murray, tutor from the College of Nursing, Australia, Miss E. Alves Diniz from the World Health Organization, Miss O. Baggallay, formerly Chief, Nursing Division, World Health Organization, and Miss Metaxa from the World Health Organization.

Miss H. M. Downton reported the excellent number of over 600 new members of the Student Nurses' Association during April, and reported that there had been a great demand for tickets for the forthcoming annual meeting and conference of the Association.

The Council were pleased to note the number of over 300 new members of the College during the past month. Grants had been made to two members from the Blair Bell Fund and the Sick Nurses Fund, and a grant of £10 to another member for the Diploma in Nursing Course from the Ellen Sarah Fountain Grant.

Arrangements for the College annual meetings, to be held in Leicester, were progressing and it was hoped that many members would be able to attend and enjoy the whole three-day session.

The next full meeting of the Council would be on July 21.

Industrial Health Conference in Buffalo

AMONG more than 2,000 industrial nurses, physicians, dentists and hygienists from the U.S.A. and Canada taking part in the 1955 Industrial Health Conference held in Buffalo, N.Y., from April 23 to 30, was Miss F. K. S. Chatfield, welfare officer in the London area for the retail staff of Boots Pure Drug Co. Ltd., who is visiting the United States and Canada to study occupational health and welfare (as announced previously). The theme chosen for this year's conference by the five participating organizations, among them the American Association of Industrial Nurses (AAIN), was a discussion of health problems in modern industry, stressing the need for teamwork among specialists concerned with the preservation and improvement of the health of industrial employees. President Eisenhower said, in a message of greetings to the conference: " In bringing together outstanding authorities in the field of industrial health, your Conference makes a significant contribution to the welfare of the nation's working force." Among the topics for discussion at the many sessions—some of which were general and others concurrent—were the following: *Oral Cancer and Allied Diseases, Uranium Mining Operations on the Colorado Plateau, Spectrochemical Analysis of Lead in*

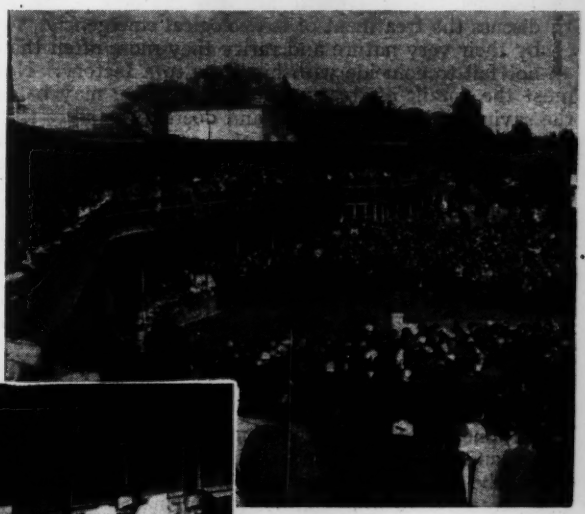
Blood and *Employee Health Counselling and Guidance.*

For the industrial nurses this, their 13th annual conference, provided a weighty programme in which business meetings and special sessions of their own members were combined with joint meetings attended by members of the other participating bodies, also visits of observation and examination of the various exhibits arranged in connection with the conference. Miss Sara P. Wagner, R.N., president of the AAIN, greeted the members at the introductory session on *Setting our Sights on Industrial Nursing Education*, at which Miss Catherine R. Dempsey, R.N., chairman of the Committee on Education, presided. At another session on the opening day the topic was *The Power of Communication.* At an important discussion on *How to Motivate Good Work Attendance* the speakers were a representative from management, with a physician, a psychiatrist, a supervisor and a health educator.

New Wing,

BENENDEN SANATORIUM

OVER 2,000 visitors flocked in coaches and cars to the opening ceremony on May 19 of the large new wing at the Civil Service Sanatorium, near Benenden, Kent. It was a truly festive occasion; the visitors thronged the lawns, the band played, and the sun shone as the opening speeches were given from the flower-decked verandah which runs the whole length of the new wing and on to which open all the two-bedded cubicle ground floor wards; those on the first floor open on to a corresponding wide balcony. These cubicle wards are delightfully decorated and equipped ; each has its two side walls in contrasting colours, cyclamen and olive or blue and primrose being used in alternate wards. Walls opening on to the corridor are painted white, and the front opening on to the verandah is glass; radiators are painted bright blue, bedspreads in attractive folkweave are different for each bed, and cubicle curtains are in cheerful patterned material. Bedside lockers, bedtables etc. are of an easily cleaned material with a dull silver finish.



Above: *visitors throng the lawn at the opening by Sir Edward Bridges of the new wing at Benenden Sanatorium.*

CIVIL SERVICE SANATORIUM, KENT

Left: *Mrs. Hamilton - Heinke, matron, receives a bouquet at the opening ceremony.*

The new wing provides 58 extra beds (44 medical and 14 surgical), and is constructed on two floors continuing the line of the original building, with the operating suite on the second floor together with the X-ray department and all ancillary rooms. The excellently equipped theatre includes a diathermy apparatus for sealing arteries (speeding up operating time and making for a better post-operative condition in the patient); there is a rack to make counting swabs easier, and built-in sterilizing equipment.

Sir Edward Bridges, G.C.B., G.C.V.O., M.C., permanent secretary to the Treasury, declared the new wing open and the Right Rev. the Bishop of Dover conducted the short service of dedication. Mr. C. T. H. Plant, chairman of the Civil Service Sanatorium Society (under whose auspices the Benenden Sanatorium is conducted, and whose efforts were responsible for this new wing) presided, and the whole ceremony was broadcast to the patients in the wards. The nursing staff formed a guard of honour and the nurses were individually presented to Sir Edward Bridges by Mrs. Hamilton-Heinke, matron. Also presented were officers of the Society, including many past chairmen, who were that week assembled for a conference at Hastings, and thus able to participate in the function.

Benenden Sanatorium is situated in a beautiful part of ' the Garden of England '—truly earning its name at this season, for one approaches the hospital through a countryside full of apple blossom, fields carpeted with buttercups, and lilac and laburnum clustered round cottage doors. For nurses who love the country this must be a happy place to work; the nurses quarters are excellent; each has a charming single bedroom, and generous transport facilities are provided to neighbouring towns, in fact taxis are available daily to one or other of these, free of charge. There is a most happy atmosphere (typical was the friendly rivalry between the sisters as to who could obtain the most flowers to deck the wards under her charge for the opening ceremony), and matron ought not to find it difficult to obtain the additional student nursing staff she urgently needs to help staff the new wing.

Benenden is, of course, recognized by the General Nursing Council as an affiliated training school for the General Register. Students can, after two years, complete their general training at Ashford General Hospital, Kent, the Kent and Sussex Hospital, Tunbridge Wells, or the County Hospital, Farnborough. Benenden Sanatorium is independent of the National Health Service, but Whitley conditions of service are followed, while the salary scales show certain advantages over the Whitley awards.

The Treatment of some Toxicological Emergencies

by H. L'ETANG, B.M., B.Ch., D.I.H., North Thames Gas Board.

IT is doubtful whether a doctor is the best person to discuss the treatment of toxicological emergencies, for by their very nature and rarity they more often than not fail to coincide with his visits to a factory. Nor must the details of treatment, vital as these may be to the saving of life, lead nurses and doctors to forget that the prevention and treatment of chronic poisoning is a more important problem. These latter cases are more numerous, and because they present in a less dramatic way, can easily be missed.

It is convenient to divide the emergencies that may occur in factories into two main groups, one caused by gases and the other by liquids. Obviously there are many toxic substances that could be considered, but for the sake of brevity only a few will be chosen in each group to illustrate the symptomatology and treatment.

Asphyxiant Gases

Carbon monoxide is the best known gas in this group. Toxic amounts can occur during its production in gas-works and coke ovens, and during its use in the home; it may be formed following explosions in coal mines, and in exhaust fumes from combustion engines.

Carbon monoxide fixes itself to the haemoglobin in the blood and as a result less oxygen in the form of oxyhaemoglobin is carried to the tissues. In addition carbon monoxide exerts a direct effect on oxyhaemoglobin, so that less oxygen is given off.

The clinical picture varies and the patient may be merely dazed, or unconscious. A severe headache is usually present, as is tachycardia, the latter being a compensatory phenomenon. The presence of carboxy-haemoglobin may lead to a cherry red pigmentation of the skin, but this colour is not always present, and many cases are seen in which the skin is a normal colour.

Hydrogen sulphide also occurs during gas manufacture and the treatment of its by-products, in the rayon industry, in oil refineries and in sewers. Its main action is to poison the respiratory centre in the brain and the patient may suffer a sudden loss of consciousness.

The treatment of carbon monoxide and hydrogen sulphide poisoning may be considered together. The patient should be removed from the source of the gas, and the attendants must take care not to become victims themselves. Artificial respiration should be applied and oxygen given by a face mask. Minor cases without loss of consciousness will quickly recover, but more serious cases should be regarded as stretcher cases. As mentioned before, the tachycardia in carbon monoxide poisoning is indicative that an extra strain has been put on the cardio-vascular system. A pulse rate of 90 or more may persist for an hour and it seems an unjustifiable risk to allow such a patient to bicycle or walk home.

The third asphyxiant gas is hydrocyanic acid, though cyanide in powder form is equally toxic. It is used as an insecticide, and may be formed during the process of electroplating. It was of course used in the concentration camps, and it is perhaps appropriate that some of the inventors of these camps died by their own hand from the use of cyanide. Hydrocyanic acid paralyses the respiratory centre and the clinical picture must be familiar to all readers of detective stories. In the last chapter, the criminal foils the police, surrounded by a scent of bitter almonds. There is a sudden collapse, convulsions and usually death.

In addition to artificial respiration with oxygen, specific treatment is available, but whether the patients who have apparently been helped by this treatment would have survived in any event, is difficult to determine. The inhalation of one capsule of amyl nitrite for 15-30 seconds, repeated every two to three minutes is advised. At the same time, an intravenous injection of sodium nitrite, 0.3 g. in 10 c.c. sterile water at the rate of 2.5 to 5 c.c. per minute, should be given. This rate must not be exceeded. This must be followed by sodium thiosulphate, 25 g. in 50 c.c. water, given at the same rate through the same needle.

Gases acting as Narcotics

Those most commonly experienced in the factory are carbon tetrachloride and trichlor-ethylene used as degreasers or solvents. Workers exposed to petroleum fumes and benzene may suffer from acute poisoning, though it is the chronic poisoning due to the latter substance which causes damage to the bone marrow. Acute exposure to such substances acts like a narcotic or an anaesthetic, and leads to paralysis of the respiratory centre. The clinical picture resembles a patient under an anaesthetic, or under the effects of alcohol. There is over-excitement, headache, nausea and vomiting, leading to convulsions, collapse and coma. There is nothing specific in the treatment. Artificial respiration is recommended, together with oxygen inhalation.

The Irritant Gases

These are best exemplified by ammonia, the properties of which need no explanation; sulphur dioxide, thought to be one of the toxic agents in 'smog'; chlorine, the effects of which were so graphically seen in the First World War; and the 'nitrous' fumes found in the manufacture of explosives, or after welding in confined spaces.

As their description implies, they irritate the eyes, nose and throat and respiratory passages, and one may easily deduce the symptoms and signs. In the extreme cases the tissues lining the trachea, bronchi and alveoli are inflamed, and the respiratory passages are filled with a watery exudate containing mucus, and red and white blood cells. The clinical picture may resemble that of a patient with severe bronchitis or broncho-pneumonia, with cyanosis, dyspnoea and wheezing respirations.

These patients should be regarded as stretcher cases and given oxygen. Just as patients with bronchitis develop right-sided heart failure, so may these cases. They should be observed in hospital, and if this complication develops, venesection may be necessary.

Abstract of a lecture given at a refresher course for industrial nurses held at the Royal College of Nursing in February.

Gases affecting the Red Blood Cells

As has been mentioned, carbon monoxide affects the red cells by combining with haemoglobin, but is normally grouped with the asphyxiant gases. Arseniuretted hydrogen (or arsine), produced during the pickling of metals; destroys the red blood cells by its haemolytic action, producing an acute anaemia. The destruction of these cells then leads to jaundice, and discolouration of the urine. If the breakdown of blood cells is excessive, the kidneys fail, leading to suppression of urine.

Very little can be done in the way of immediate first aid, and treatment obviously needs to be carried out in hospital. Oxygen therapy is continued, fluids given and, if necessary, blood transfusions to replace the destroyed red blood cells.

Liquids affecting the Blood Cells

Aniline and nitrobenzene occurring in the chemical industry can be absorbed through the skin, when they combine with haemoglobin to form methaemoglobin, a blue-brown pigment. As a result, the patient is cyanosed and suffers from lack of oxygen. The early symptoms are headache, weakness, giddiness and shortness of breath, and later collapse with weakness in pulse, fall in blood pressure and failure of respiration. The urine becomes dark owing to formation of methaemoglobinuria.

In the treatment of this emergency, first aid is vital. If patients have been splashed with substances of this type, the clothing should be removed and the skin washed with cold water. Oxygen should be administered and the patient removed to hospital. In his 1953 report, the Chief Inspector of Factories records two cases of aniline intoxication, in which this first-aid treatment was not properly carried out.

Liquids affecting the Skin

The effects of acids, alkalis, and hot tar and pitch on the skin are familiar to us all. Burns of varying degrees are caused, and they are usually considered to be surgical rather than toxicological emergencies; but emergencies they certainly are, for with the face and hands involved there is a severe risk of loss of function, and scar formation.

One particularly unpleasant type of burn caused by hydrofluoric acid just comes within the category of a toxicological emergency. This substance is used in foundries to remove sand from castings, in glass works for etching and frosting, and in the pottery industry for removing spots in the glaze. Besides causing superficial burns, the substance penetrates into the deep tissues causing necrosis, with acute pain, and loss of function in the fingers. Emergency treatment is essential. The burned part should immediately be washed in a warm saturated solution of sodium bicarbonate. After this washing, a cream of magnesium oxide and glycerin should be massaged into the surface of the burn. As soon as possible a 10 per cent. solution of calcium gluconate should be injected under the burned surface, and where the risk of hydrofluoric acid burns occurs, such first-aid facilities should be readily available.

Toxicological Emergencies in Agriculture

It might be of interest now to leave the factory, and consider two toxicological emergencies which occur in agriculture. It is difficult to provide medical care for small numbers of workers scattered over many square miles, but some of us may yet find ourselves working in such a community.

The first toxicological substance to be mentioned is Dinitro-ortho-cresol (D.N.O.C.). This is used as an insecticide and weed killer. Before the second war, this substance was used as a weight reducer because it stimulates metabolism; it does reduce weight but it has tragic consequences since one of its actions is to cause cataract in the lens of the eye.

If farm workers are exposed to too much D.N.O.C. the symptoms of an increased metabolism become apparent. Insomnia, excessive sweating, lassitude, thirst, anorexia and loss of weight occur; the urine may become deep yellow. These symptoms rapidly worsen if exposure continues and are followed by respiratory distress, tachycardia, hyperpyrexia and death.

Treatment presents an interesting first-aid and nursing problem. Absolute rest in the nearest available place is indicated as a long journey to hospital may aggravate the symptoms. The patient should be reassured and given sedatives such as phenobarbitone. Oxygen should be administered by a face mask or in a tent. Frequent cold sponging, as in treatment of heat hyperpyrexia occurring in the tropics, may be necessary, or even ice packs around the body. Fluid loss can be replaced by glucose and saline by intravenous methods if necessary. Finally, just as thiouracil is given to patients with toxic goitre to lower the metabolism, so in this emergency intravenous thiouracil has been tried.

The second toxicological emergency occurs when certain organic phosphorous compounds are used to kill insects. These substances have what is known as an anti-cholinesterase action.

Normally, acetyl-choline is produced at the parasympathetic nerve endings, and probably at the junction of spinal nerves and muscles. After exerting its action, the acetyl-choline is destroyed by a substance called cholinesterase. If this cholinesterase is itself destroyed by the organic phosphorous compounds, the acetyl-choline goes on acting and the nerves of the body and the organs and muscles they supply are in continuous activity.

Overaction of the parasympathetic system is familiar to sufferers from sea-sickness, and agricultural labourers (or chemists) who have received an overdose of these compounds complain of anorexia, nausea, vomiting, colic, pallor, sweating, salivation and incontinence. The most noticeable physical sign is pin-point pupils. The unchecked action of acetyl-choline at the junction between nerves and muscles leads first to generalized muscular twitchings, then to convulsions. Finally, the respiratory muscles go into spasm and the patient cannot breathe.

As may be imagined, urgent treatment is vital. These substances can be absorbed through the skin and, therefore, contaminated clothing should be removed, and the skin washed. Many of the symptoms are due to excessive activity of the parasympathetic system, and for the same reason that atropine or hyoscine is administered for sea-sickness, atropine sulphate, gr. $\frac{1}{60}$—gr. $\frac{1}{30}$, is given intramuscularly or intravenously at hourly intervals until the symptoms improve. Artificial respiration is carried out, and oxygen may be given. If the respiratory passages are blocked with mucus, postural drainage may be necessary, for just the same reason as it may be needed in bulbar poliomyelitis.

Conclusion

There are certain special points to be considered in the treatment of these emergencies.

Doctors and nurses must be aware of their possibility, and such knowledge can only be learned out on the works or on the factory floor. Chemists and engineers may be aware of hazards, but unaware that these may have a poisonous effect on the workmen. It is possible for the technical and medical departments to work side by side for years, and yet be unaware of these hazards, and there-

fore continuous discussion, informal as well as formal, is essential to remedy the defects in each department's knowledge of the other.

It is obvious that it is the first-aider who is most likely to be available in the first vital minutes, and it is essential that he is well trained, and proficient in artificial respiration. If there are specific risks such as aniline or hydrofluoric acid, the first-aider must receive special training, and when absent through sickness or due to holidays, his substitute should be adequately trained.

A competent person must ensure that the oxygen cylinders and breathing apparatus are always in good repair, and that the telephone system works even if the usual switchboard closes down at the end of the day shift. The arrangements for obtaining an ambulance quickly should be checked occasionally, to ensure that the drivers can go without hesitation to all parts of the works, by day or night, in all types of weather.

Finally, doctors and nurses should do all in their power to persuade chemists, engineers, and safety officers to observe the principles of engineering control. If it were possible to replace toxic materials, prevent leakage, have adequate ventilation, and ensure personal protection, these toxicological emergencies need never occur.

Canadian Appointment

MISS Muriel Uprichard, a former British Council scholar, has been appointed Assistant Professor of Education and Director of Research in the University of Toronto School of Nursing. Miss Uprichard was a British Council scholar from 1945 to 1947 and took her Ph.D. for research in the field of educational psychology at the Institute of Education, London University. She was joint author of the study of the Florence Nightingale International Foundation, published in 1948. On her return to Canada she was appointed National Director of the Junior Red Cross, Canadian Red Cross Society, a position which she has now resigned to take up her new appointment. The University of Toronto School of Nursing gives a B.Sc.(R.N.) for a five-year course for women to be teachers and administrators in the nursing field. There are also postgraduate courses to prepare graduates of other schools of nursing for senior posts in public health, government service and hospital administration. Of the 400 students attending these courses about a quarter are from abroad, mostly Rockefeller, Kellog and WHO scholars.

AN UNUSUAL THESIS

—for the Diploma in Industrial Nursing

A newspaper is one of the most remarkable products of modern society. To gather news from the five continents: to print and distribute it so fast that what happens at dawn in India may be read before breakfast in England; to perform the feat afresh every twenty-four hours; and to sell the product for less than a box of matches: this were it not so familiar would be recognised as an astonishing achievement. Report of the Royal Commission on the Press, 1947-49.

THESE words (with whose truth we are even more forcibly struck through the recent experience of being deprived of our daily newspapers) form the frontispiece of a most interesting thesis prepared by an industrial nurse* in accordance with the requirements of the examination for the Diploma in Industrial Nursing of the University of London. Candidates must produce a thesis presenting a general survey of the industry in which they are employed, and in this case the candidate held the unusual post of industrial nurse in a big newspaper concern. She was therefore able to present, from a unique angle, what is to many of us a little known industry, in spite of the fact that it has a constant and quite immeasurable effect on our daily lives. on our judgements, habits of thought; the very maintenance indeed of those freedoms which we cherish so dearly and guard so jealously.

The author of the thesis has illustrated it with pictures cut from various journals, with newspaper cuttings, diagrams, original sketches, and samples of papers and materials used in their manufacture. She begins her story with an account of the early methods of conveying news—by word of mouth, by sheets written by scribes and passed from hand to hand, the beacons lit on hills—until the discovery of printing started a new era leading by gradual steps to the wonders of the modern newspaper industry.

These steps the author describes for us, together with the personalities who promoted the development of the newspaper through several hundred years of history. She mirrors for us the spur to action on a national scale which is one of the most valuable services rendered by our national newspapers; in particular, the effect of the writings of Charles Dickens on social reform, and of the *Times* special correspondent's dispatches from the front in the early stages of the Crimean War.

The complex organization of modern newsgathering is described—telecommunications, the teleprinter, the telephoto—with samples of each form of message. The staff and organization of the newspaper office is described, with a note of the functions of each, and the method of planning and compiling an edition of the newspaper.

Having dealt with the raw material of the news and how it is handled, she then introduces another essential raw material, the newsprint, tracing it by picture and prose from the pine forests of Newfoundland or Scandinavia to the sawmill, the pulping plant, and through various chemical processes to the paper mill, until it finally emerges wound in five-mile strips in the huge rolls one can see being unloaded any day in the turnings off Fleet Street, ready for the hungry presses.

An outline is given of the printing processes, and those used in producing illustrations, the work of the compositors, proof readers, dispatching staff, and the drivers who convey the bales of printed newspapers to station or airport or newsagent.

The concluding section of the thesis gives a description of the occupational environment of the workers in this industry. Set, necessarily, in the heart of great cities, a continual warfare must be waged against dirt, paper ' dust ' and ink ' mist ', needing an army of 200 cleaners in one newspaper office alone to sweep and oil parquet floors, wash and polish linoleum, and sweep and oil-clean steel floors in the machine room. White-tiled walls here are washed at regular intervals, overhead pipes are washed every six months, and office walls made of steel and glass are also regularly cleaned and a continuous programme of painting and re-decorating is carried out throughout the building. Temperature and ventilation are important problems, and conditioned air is pumped to all parts of the building; central heating with

* *Miss B. M. Slaney, S.R.N., Industrial Nursing Cert. (Royal College of Nursing), Orthopaedic Nursing Cert., Diploma in Nursing (Industrial Nursing), University of London; formerly deputy charge sister, Associated Newspapers Ltd., and recently appointed sister-in-charge, Mars Ltd., Slough, Bucks.*

thermostatic control regulates temperature. Extractors carry off nitrous and metal fumes. Lighting is by daylight as far as possible, and much attention is paid to the efficiency of artificial lighting systems which necessarily play a large part. The accident rate in the printing industry is discussed and illustrated by a chart. Wefare arrangements and accident precautions are briefly outlined, and medical and first-aid facilities described, and there are short notes on the particular occupational hazards encountered. Plans of the first-aid room and medical department are included and there are some interesting observations on the general home environment and living and travelling conditions of the workers in the industry—a complete cross-section of the community whose homes vary from country houses or luxury flats to small suburban homes, tenement flats, and homes created from abandoned barges in the Thames estuary.

Central Health Services Council and Advisory Committee Members

THE Minister of Health has made the following appointments and re-appointments to the Central Health Services Council and Standing Advisory Committees for the period ending March 31, 1958 (an asterisk denotes a new member).

Central Health Services Council

Medical Practitioners: *Sir Stanford Cade, K.B.E., C.B., F.R.C.S., M.R.C.P. (London); Professor Sir Henry Cohen, J.P., M.D., D.Sc., LL.D., F.R.C.P., F.F.R. (Liverpool); Professor A. J. Lewis, M.D., F.R.C.P. (London); W. P. H. Sheldon, Esq., M.D., F.R.C.P. (London); *S. Wand, M.B., Ch.B. (Birmingham).

Persons with experience in Hospital Management: P. H. Constable, Esq., M.A., F.H.A. (London); *A. G. Till, Esq., F.H.A., F.C.S.S. (London).

Persons with experience in Local Government: Sir Frederick Messer, C.B.E., J.P. (London).

Dental Practitioner: *T. Hindle, Esq. (Blackburn).

Persons with experience in Mental Health Service: *C. Bartlett, Esq. (S. Devon); *Mrs. L. Cellan-Jones, M.B.E., J.P. (Swansea)—(until March 31, 1957).

Registered Nurse: Miss E. J. Merry, S.R.N., S.C.M. (London).

Registered Pharmacist: Alderman W. J. Tristram, J.P., M.P.S. (Liverpool).

Standing Nursing Advisory Committee

P. H. Constable, Esq., M.A., F.H.A.; Miss M. M. Edwards, M.V.O., S.R.N., S.C.M. (London); *Miss B. N. Fawkes, S.R.N., S.C.M. (London); Miss F. G. Goodall, C.B.E., S.R.N. (London); Miss E. J. Merry, S.R.N., S.C.M. (London); *Sir Cecil Oakes, C.B.E., D.L., J.P. (Woodbridge, Suffolk)—(until March 31, 1957); Miss M. J. Smyth, S.R.N., S.C.M. (London); Miss B. H. F. Townsend, S.R.N., S.C.M., H.V. (Enfield, Middlesex).

Standing Maternity and Midwifery Advisory Committee

Miss J. M. Akester, S.R.N., S.C.M., H.V. (Leeds, Yorkshire); Miss L. Beaulah, S.R.N., S.C.M., M.T.D. (Kingston, Surrey); Miss Z. M. Goodall, S.R.N., S.C.M., M.T.D. (New Malden, Surrey); Miss E. J. Merry, S.R.N., S.C.M. (London); *Professor W. C. W. Nixon, F.R.C.S., F.R.C.O.G. (London).

Standing Mental Health Advisory Committee

C. Bartlett, Esq. (S. Devon); N. H. M. Burke, O.B.E., M.R.C.S., L.R.C.P., D.P.M., D.M.R.E. (Wimbledon, London); *Mrs. L. Cellan-Jones, M.B.E., J.P. (Swansea)—(until March 31, 1957); *T. M. Cuthbert, M.R.C.S., L.R.C.P., D.P.M. (Middlesbrough, Yorks.); Professor A. J. Lewis, M.D., F.R.C.P. (London); *B. Mullen, Esq., S.R.N., R.M.N. (Radcliffe-on-Trent, Notts.)—(until March 31, 1957); *C. A. H. Watts, M.D. (Ibstock, Leicestershire)—(until March 31, 1956); D. J. Williams, C.B.E., D.Sc., M.D., F.R.C.P. (London). One vacancy.

Standing Tuberculosis Advisory Committee

P. M. D'Arcy Hart, M.A., M.D., F.R.C.P. (London); *Miss G. M. John, S.R.N., S.C.M. (Swansea, Glam.); P. Kerley, C.V.O., C.B.E., M.D., F.R.C.P., F.F.R. (London). One vacancy.

For Student Nurses

A Suggested Answer to a State Examination Question, by the Sister Tutor Section, Royal College of Nursing.

GENERAL NURSING COUNCIL FOR ENGLAND AND WALES

FINAL GENERAL EXAMINATION

Surgery and Gynaecology

Question 1. *In what circumstances may a patient develop an abscess of the breast? Describe the signs, symptoms, complications and treatment of this condition.*

Breast abscesses most commonly occur during lactation as the result of bacteria gaining entrance through a cracked nipple. Since it usually occurs early in lactation, engorgement with milk and a blocked duct often precede the condition and facilitate spread of the invading organisms. These are frequently staphylococci or streptococci.

The patient may complain of pain, tenderness and fulness of the affected breast following neglected soreness of the nipple. In advanced cases the axillary glands may be tender and the arm swollen on the affected side. The patient may feel ill and have a raised temperature.

On examination, the area of inflammation and hardness may involve the whole breast or just one segment, the overlying skin being hot and red in the early stages. Later, when suppuration occurs, the skin becomes oedematous. Fluctuation may be detected if the abscess is localized superficially around the ducts beneath the aureola. If the abscess lies deeply in the substance of the breast, these signs may be less obvious. If the blood is examined the white cell count may be raised.

The complications arising from this condition are:

(1) failure of lactation;

(2) recurrence owing to the abscess not having been opened when symptoms have subsided or to inadequate drainage;

(3) residual thickening of the breast causing impairment of function;

(4) haemorrhage at the time of opening the abscess.

The patient should be confined to bed. She should be reassured regarding the feeding of her baby about whom she will be primarily concerned. Suckling may be continued from both breasts as long as possible providing that the milk is not infected. This can be ascertained by bacteriological examination of a specimen of expressed milk. Heat may be applied to the breast to help relieve pain and the patient may be ordered an analgesic drug and a sedative as she may have lost sleep because of the pain. A full diet is given with increased fluids to maintain general health.

Antibiotics will be ordered; for example, chloramphenicol, 0.5 g. six-hourly for three days, followed by 0.25 g. six-hourly for two days. Alternatively, the organism may be sensitive to penicillin which might be given in doses of 400,000 units daily. With this treatment the inflammation may subside.

If suppuration occurs, the milk from the inflamed breast is expressed. The baby then continues to feed from the unaffected side only and complementary feeds are given to make good the deficiency. Alternatively, if the abscess occurs near the normal weaning time this is hastened and the surgeon may order stilboestrol to be given. If the abscess requires drainage the patient is taken to the theatre, the abscess is incised and drainage established. Drainage tubes are shortened and removed according to the surgeon's wishes. Care must be taken to see that the wound heals from the base of the cavity after drainage has ceased.

The patient may be allowed up when the temperature subsides and gradually resumes the general care of her baby. She is given advice regarding cleanliness of the breasts and avoiding sore and cracked nipples. It is hoped that feeding from both breasts will be re-established until the normal weaning time.

Civil and Medical Statistics

THE recently published commentary* on the Registrar-General's Statistical Review of England and Wales for 1951 returns to the pre-war practice of publishing commentaries on civil and medical statistics in a single volume, instead of separately. Population figures in the commentary are from the Preliminary Report on the 1951 Census (the first for 20 years) and the 1 per cent. sample of that census.

The high birth rate at the end of and immediately following the war seems to have passed, and fertility seems to have become stabilized at a comparatively lower level which is, however, above the low rates of 1931-38. Size of families tend to become more uniform—very large and very small families being less frequent.

The marriage rate remained high in 1951, probably to be accounted for by the increasing proportion of non-married men to women of marriageable ages. The proportion of married women to the total woman population is larger than in 1938 and, in general, not only do more people marry but they tend to marry younger. Probably two-thirds to three-quarters of divorced people re-marry eventually.

The death rate was substantially greater in 1951 than in 1950, mainly due to the severe influenza epidemic early in the year, 39,079 of the increase in number of deaths being directly or indirectly accounted for by this epidemic.

Comment is once more made on the higher mortality in Wales and the North of England; in 1951 the excess was rather greater among children under five than older children. The death rate was actually 30 per cent. higher among young children in the North of England than in the South, the Welsh rate being even higher.

Dramatic decline in deaths from respiratory tuberculosis since 1947 is noted, particularly in younger age groups. The decline in the notification rate since 1948 has been less satisfactory in women than in men, though the rate for men rose in 1951 (possibly a repercussion of the influenza epidemic).

A sample analysis was made in 1951 of death certificates which provide for information as to contributory causes of death as well as the underlying cause. Such an analysis shows the relationship between the underlying causes of death and 'complications' or 'contributory conditions'; for instance, a sample gives 200 deaths from diabetes, and an additional 323 deaths in which it was a contributory condition.

Particulars are given of the Population Commission of the United Nations, and of the work of WHO in health statistics.

* *Commentary on the Civil and Medical Statistics for 1951.* (*H.M. Stationery Office, 10s.*)

HERE and THERE

PRACTICAL PAEDIATRIC NURSING CONTEST

ALDER Hey Children's Hospital, Liverpool, were the winners, and the Royal Manchester Children's Hospital, Pendlebury, the runners-up, in the fifth annual Practical Nursing Contest of the Northern Group, Association of British Paediatric Nurses, held at Booth Hall Children's Hospital, Manchester, on April 23. Eliminating rounds had taken place in which the following hospitals participated in addition to the finalists: Seacroft Hospital, Leeds; Royal Liverpool Children's Hospital; Booth Hall Children's Hospital; The Hospital for Sick Children, Yorkhill, Glasgow. Sheffield Children's Hospital entered, but were unfortunately unable to compete.

Left: *members of the Alder Hey team who won the practical nursing contest of the Association of British Paediatric Nurses (Northern Group).* Left to right: *Miss B. M. Roberts, Miss S. Meyer, Miss M. Davies and Miss G. H. Thomas.*

At the final contest, the adjudicators were Miss Miller, matron, Victoria Hospital for Children, Chelsea, and Miss Worthy, principal tutor, The Hospital for Sick Children, Great Ormond Street, London. The teams were set the following task.

> Baby aged seven months (accompanied by mother) to be admitted suffering from acute otitis media and gastro-enteritis: (i) set up unit for isolation and care on admission; (ii) prepare child for fluid replacement and initial treatment of otitis media.

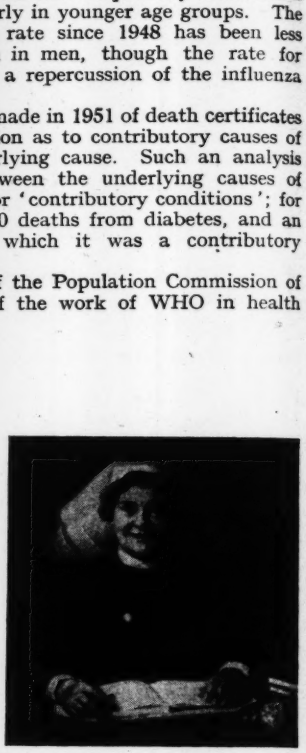
Prizes of book tokens were presented to the winning team.

PRESENTATION AT DIGBY HOSPITAL

BEFORE a large audience of patients and staff from all departments at Digby Hospital, Exeter, a presentation was made by Alderman Mrs. J. M. Phillips, O.B.E., J.P., to Miss F. N. Henry, S.R.N., R.M.N., R.M.P.A., on her retirement from the post of matron. Dr. John Russell, medical superintendent, referred to the sterling qualities shown by Miss Henry as matron during the last 20 years.

A gift of flowers and a teapot and tray set was made by the patients.

Calling upon Alderman Mrs. Phillips to present on behalf of the staff a portable wireless set and wallet, Dr. Russell expressed his pleasure in asking her to do so in view of her long connection with the house and management committees and her exceptionally keen and unfailing interest in the hospital and its nursing staff.



Right: *Miss F. N. Henry, who has retired from Digby Hospital, Exeter, where she has been matron for the last 20 years.*

Miss Henry expressed her thanks and appreciation both of the gifts and the sentiments that prompted them.

Miss Henry is well known locally for her work in connection with the St. John's Ambulance, Soroptimists and the Royal College of Nursing; she has also been secretary and president of the Norfolk and Norwich Branch of the College.

OAKWOOD HOSPITAL RETIREMENT

AFTER 32 years' service at Oakwood Hospital, Maidstone, Mr. F. D. Arrow retired on May 3. Mr. Arrow trained at the hospital and after four years' service as a charge nurse became a head male nurse in 1935 and was promoted to chief male nurse in 1937. Mr. Arrow's qualities as a nurse have received high commendation and, in addition to his nursing duties and administration, he has taken an active part in the social life of the hospital. Mr. Arrow was entertained to lunch by the members of the hospital management committee and presented by the chairman, Captain H. G. Giffard, R.N. (Retd.) with a wireless set. At a reception attended by a large number

of the staff, Mr. Arrow was presented with a canteen of cutlery on behalf of the officers and staff by Dr. R. Gordon McLaren, medical superintendent.

Mr. Arrow is succeeded by Mr. B. Mullen, chief male nurse of Saxondale Hospital, Radcliffe-on-Trent, Nottinghamshire.

TRAUMATIC SURGERY COURSE

THE Institute of Accident Surgery (in conjunction with the Board of Graduate Studies, The Medical School, University of Birmingham), is holding a one-day course in *Traumatic Surgery* for industrial medical officers and industrial nurses at the Birmingham Accident Hospital on Saturday, June 11.

Mr. William Gissane will lecture on *Organization for the Prevention and First Aid Treatment of Accidents*, Mr. Ruscoe Clarke on *Early Treatment of Shock and Haemorrhage*, Mr. P. S. London on *Prevention of Infection in Open Wounds*, and Mr. F. G. Badger on *Modern Treatment of Fractures*. The fee for the course (including tea) is one guinea, payable to the Institute of Accident Surgery. Applications should be sent as soon as possible to the Secretary, Institute of Accident Surgery, Birmingham Accident Hospital, Bath Row, Birmingham 15, from whom further particulars may be obtained.

CENTRAL COUNCIL FOR HEALTH EDUCATION

A CATALOGUE of films for health education has just been published by the Central Council for Health Education, Tavistock House, Tavistock Square, London, W.C.1, price 3s. 6d. The catalogue contains 24 pages of film titles, each with a short description of what the film shows and time of showing under the following headings: Accident Prevention, Cancer, Communicable Disease, Environmental Hygiene, Health and Child Welfare Services, Mental Health, Nutrition, Personal Hygiene, Parentcraft, Physiology and Anatomy, Sex Education and Heredity. A list of library references and alphabetical index of titles is also included.

PLASTIC TRAYS

THE British Standards Institution has now published *Plastic Trays* (British Standard 2581:1955). This covers all trays used for conveying, serving or displaying food, conveying or storing goods during and after manufacture and for normal household usage. Very stringent tests for the quality of material used—workmanship, fittings and finish, resistance to breaking, chipping and heat—and also stipulations regarding toxicity and rigidity are specified. These tests must be performed before the B.S.I. mark may be applied to plastic trays. All trays which pass these tests will now have the B.S.I. mark No. 2581:1955 permanently embodied in their surface so that purchasers can be sure that they conform to the British Standard.

While trays used for purposes which would subject them to exceptionally high temperatures or contact with strong chemicals are not covered by the Standard, tests for heat resistance are so severe that any tray passing them is sure of a long life if treated normally. Furthermore, this British Standard will assist the designer of trays to select the correct type of material to design a specific tray to give it maximum strength. In this way it is hoped to avoid misapplication of materials and ensure that a satisfactory article is produced.

Letters to the Editor

Nursing Research

MADAM.—Dr. Margaret Jackson's article in your issue of May 20, *Where Should the Nurse be Trained?* was extremely interesting. One sentence made me sit up and think:

"But a scientific study, backed by figures, might often be the means of bringing up-to-date measures into the less advanced hospitals."

I work in a factory, where productivity is, of necessity, the chief aim. To achieve this, the workers' movements are studied, and the work is arranged so that the least possible movements and effort are needed to achieve the maximum result.

Recently I spent a few weeks in hospital, as a patient. I had time then to consider how methods could be altered or revised, (*a*) to help the patient, (*b*) to help the nurse. Things that were taken for granted as part of the daily chores could be greatly eased if scientifically presented. Nurses work hard and think hard too, as they use methods of treatment, and perform their daily tasks. Could not their ideas on improving methods and utensils be collected, tested, and then, if worthwhile, used?

Far too much use is made of the nurse as a person who lifts, pulls and pushes! If the patient can lift, by means of a handle on a chain over the bed (*a*) it improves the patient's morale, (*b*) it simplifies nursing procedure.

It is an old saying, but very true, "Take care of the little things and the big things take care of themselves."

I feel sure that we could start by giving our attention to small details, such as simplifying and modifying certain equipment. Is it possible to gather together ideas on improving nursing methods and appliances? I had in mind a form of competition, not confined only to the nursing or medical professions, with the best ideas put to test, and reported on, in a nursing research centre. Whether such a scheme could be carried out is purely a matter of conjecture.

MARJORIE WOLFSON, S.R.N.,
Ind. Nursing Cert.

Fingerstalls

MADAM.—In answer to J. G. Holland's query of April 22, I should like to point out that Lastonet Products Ltd., the makers of the well-known elastic net surgical stockings, manufacture a very popular and effective line in strapless finger-stalls in the same material. These can be used with or without dressings and are particularly hygienic and comfortable to wear.

A. NAYLOR,
Secretary to Managing Director,
Lastonet Products Ltd.

Paddington General Hospital, London, W.9.

Miss A. Henry, matron, is retiring. Will any past members of the staff who wish to be associated with the presentation to her please send their donations to Miss Donohoe, deputy matron.

King George V Hospital, Godalming, Surrey

Miss Grace Livings, who has been the surgical ward sister for 19 years, is retiring at the end of June. It is proposed to make a presentation to her and if any former members of the staff would like to be associated with it, matron would be pleased to accept their contributions.

University College Hospital Nurses' League

MEMORIAL TO MRS. E. O. JACKSON

A fund has been opened for a memorial to the late Mrs. Jackson, matron of University College Hospital for 11 years. The memorial is to take the form of a Bursary Fund for educational courses and study tours for members of the League. All subscriptions should be sent to the Hon. Treasurer, Miss Gill, 17, Wilfred Road, Boscombe, Hants. Cheques should be made payable to the Hon. Treasurer and crossed 'Olive Jackson Memorial Fund'.

Nurses Club, Belgium

The Club des Infirmières, Brussels, would welcome British nurses who may be visiting Belgium. The charges are: single room, h.c. water, 75 fr.; breakfast 12 fr.; dinner 30 fr.; supper 27.50 fr.; plus service 10 per cent. Please write to the manageress, S. Devigne, Club des Infirmières, 18, rue de la Source, Bruxelles.

Appointments

County Council of Essex, Nurses' Training Home, Dagenham

MISS H. E. BASTERFIELD, S.R.N., S.C.M., M.T.D., H.V.Cert., took up her appointment as Queen's superintendent, midwife teacher and supervisor of midwives on March 17 and is in charge of a staff of home nurses, home nurse midwives and midwives covering the area of Romford and district from the home at York House. After training at Taunton and Somerset Hospital, the Three Towns Nursing Association, Plymouth, and the Royal College of Nursing, Miss Basterfield held a series of midwifery and district posts in Plymouth, West Sussex, Leytonstone and Slough. In 1946 she was appointed superintendent of the Queen's Institute of District Nursing Key Training Home in Birmingham and in 1949 became superintendent of the Kensington Training Home, where she has also been an active member of the Public Health Section of the Royal College of Nursing.

Colonial Nursing Service

The following appointments have been made by Queen Elizabeth's Colonial Nursing Service.

First Appointments. As nursing sisters—Miss J. A. Aitchinson, Miss E. S. Booth, Miss G. Farnsworth, Miss C. B. A. Morris, Miss M. O'Connell, Miss R. H. J. Wells. As mental nursing sister—Miss C. W. Davie. As matrons—Miss M. M. Buckley, Miss R. Clapton, Miss A. L. Cooks, Miss A. Gannon.

NASEAN, LIVERPOOL

THE annual general meeting of the Liverpool and Merseyside Branch of the National Association of State Enrolled Assistant Nurses was held at Alder Hey Hospital, Liverpool (by kind permission of Miss K. L. Cawood, matron). The chair was taken by Mr. J. N. Galston, S.E.A.N., in the absence of the president. The following officers were elected: president—Alderman W. J. M. Clark; vice-president—Col. A. McKie Reid, M.C., T.D., F.R.C.S.; chairman—Miss Baines, S.E.A.N.; treasurer—Miss I. Mellor, S.E.A.N.; secretary—Miss C. Roberts, S.E.A.N.

NURSING SCHOOL NEWS

Harrow Hospital

THE headmaster of Harrow School, Dr. R. L. James, Ph.D., M.A., was the principal speaker at Harrow Hospital's annual prizegiving, held on April 30 in the Speech Room of Harrow School. The prizes and certificates were presented by Mrs. James.

Dr. James referred to the tremendous things that had been done for people in the way of anaesthetics and other results of medical research and skill, and added that nursing was moving every day to higher and higher perfection. Nurses were doing the best possible work in the world, because they were helping people who needed help.

Miss E. Martin, matron, reported that results of the hospital and State examinations had been extremely good; all the candidates had been successful in the final State examinations. The group training scheme had now been established for four years, and she considered that the spirit of comradeship was quite remarkable; as the girls moved from hospital to hospital, they fitted in well and worked well together.

Miss I. G. Warren, principal of the Staff College for Matrons, King Edward's Hospital Fund for London, who also spoke, referred to the fact that we now had in this country 50 per cent. more nurses working than in 1938. It was announced that it had been decided that the building of the new hospital at Northwick Park could now go ahead.

A presentation was made to Dr. H. E. Thorn, who had served for 17 years as chairman of the medical staff and its committee.

Prizewinners included the following: practical nursing, Miss G. Stroud; best all-round nurse of her year, Miss O. Roberts; outstanding care for the needs of the patient, Miss E. Obi.

Above: *at ROYAL LANCASTER INFIRMARY the Mayor of Lancaster congratulates Miss M. J. Powley on winning the Gibson medal. Also in the picture are the Mayoress; Mr. L. W. Gibson, chairman, Lancaster and Kendal Hospital Management Committee; Miss I. Walton, matron, and Mrs. E. A. Watson, J.P., chairman of the Nursing Committee, Manchester Regional Hospital Board.*

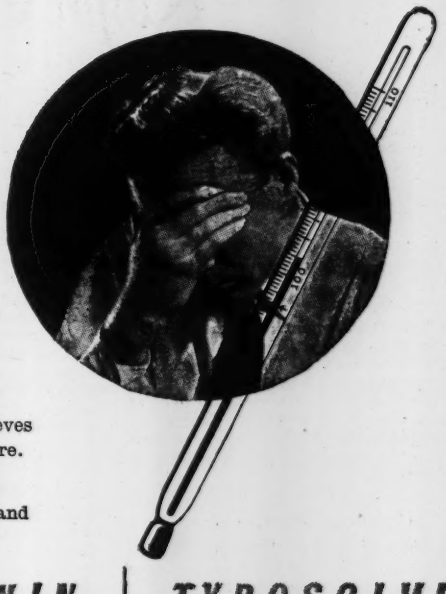
Left: *Miss G. Stroud receives the practical nursing prize from Mrs. R. L. James at HARROW HOSPITAL.*

Left: *at POOLE GENERAL HOSPITAL Miss J. A. J. Moss receives her award as best practical third-year nurse from Mrs. I. Lang, nursing adviser to the South West Metropolitan Regional Hospital Board. Miss D. L. Chaldicott won the gold medal and Miss K. Braun the medicine prize.*

Above: *at BURNLEY and DISTRICT Hospital Management Committee's prizegiving for nurses from Victoria Hospital, Marsden Hospital, Reedyford Memorial Hospital and Burnley General Hospital. Seated, left to right are Lady Platt, Mrs. E. A. Watson, J.P., and Sir Harry Platt who presented the prizes.*

Left: *at CLAYBURY HOSPITAL, Woodford Bridge, Essex, Mrs. T. L. Iremonger presented the awards. Prizewinners included G. Warriner, senior nursing; A. Whitney, psychiatry, and S. J. Malby, medicine.*

at home with a temperature



The commonplace feverish chill causes a degree of discomfort out of all proportion to the severity of the condition. Temperature, sore throat and cough, generalised aches and pains, if neglected may lead to a more serious illness.

VEGANIN—2 tablets three times a day—rapidly and effectively relieves the pain and the cough, encourages sleep and lowers the temperature.

TYROSOLVEN—1 lozenge allowed to dissolve under the tongue every hour—destroys the bacteria which inflame the throat and relieves the pain and difficulty in swallowing.

Veganin is available in tubes of 10 and 20 tablets
Tyrosolven is available in packs of 20 lozenges

VEGANIN | TYROSOLVEN

No Warner preparation has ever been advertised to the public

WILLIAM R. WARNER & CO. LTD., Power Road, London, W.4.

When your advice is sought.....

for an effective antacid.

Completely soluble in the gastric juice and devoid of the disadvantages accompanying carbonate medication, 'Milk of Magnesia' is the antacid gastric sedative of choice in morning sickness, biliousness and acute indigestion.
Widely endorsed as a safe antacid laxative for children and infants from the earliest age.

'Milk of Magnesia'

THE CHAS. H. PHILLIPS CHEMICAL CO. LTD., 1, WARPLE WAY, LONDON, W.3.

Royal College of Nursing

Sister Tutor Section

Sister Tutor Section within the South Western Metropolitan Branch.—A general meeting will be held at 7, Knightsbridge, St. George's Hospital, S.W.1, on **Thursday, June 2,** at 8 p.m. All members will be welcome.

Ward and Departmental Sisters Section

Ward and Departmental Sisters Section within the Birmingham Branch.—The next meeting will be held at The General Hospital, Birmingham 4, on **Wednesday, June 8,** at 6.45 p.m. A study day will be held at the Birmingham Education Centre on **Thursday, September 8.** Further particulars and full programme will be published as soon as possible.

Branch Notices

Blackpool and District Branch.—A visit to Whittingham Hospital has been arranged for **Monday, June 6,** leaving Devonshire Road Hospital at 6.30 p.m. prompt. The charge will be 4s.

Guildford Branch.—A business meeting will be held in the Board Room of the Royal Surrey County Hospital, Guildford, on **Monday, June 13,** at 6.30 p.m. to discuss the agenda of the Branches Standing Committee meeting in Leicester and other matters.

Hastings and District Branch.—A business meeting will be held at Kenilworth, Buckhurst Road, Bexhill, on **Tuesday, June 14,** at 3 p.m.

South Western Metropolitan Branch.—The Branch will refund the conference fee and expenses of two of its members attending the Annual General Meetings in Leicester. Application should be made *immediately* to Miss Bentley, Lambeth Hospital, S.E.11.

Southend-on-Sea Study Day

Southend-on-Sea Branch is holding a study day on Monday, July 11.

9.30 a.m. to 10.30 a.m. *Bilateral Oophorectomy and Adrenalectomy,* by Mr. Gordon Ungley, F.R.C.S. (lantern slide lecture).

10.30 a.m. Coffee.

11 a.m. *The Nursing of Patients after Adrenalectomy and the Establishment of a Post-operative Observation Ward,* by Miss Skellern, S.R.N., sister.

12 a.m. Buffet lunch.

2 p.m. *The Use of Radioactive Isotopes in Medicine,* by Dr. D. C. Caldwell.

3 p.m. *The Department of Endocrinology, New End Hospital,* by Dr. Crooke Morgan, (lantern slide lecture).

4 p.m. Tea.

Fees. Inclusive of meals, College members 3s. 6d.; non-members 5s. Single lectures, College members 1s.; non-members 1s. 6d.; student nurses 6d.

Will any member who wishes to have lunch or tea at the General Hospital, please notify Miss R. H. Parker, matron, The General Hospital, Southend-on-Sea, before the last day of June.

King's Lynn Study Day

A study day was recently organized by the King's Lynn and District Branch and was well attended by State-registered nurses and State-enrolled assistant nurses of hospital and district staff in West Norfolk.

At the morning session Dr. G. Barran, consultant chest physician, West Norfolk and King's Lynn General Hospital, chairman, introduced Mr. H. J. Beard, M.D., F.R.C.S.E., consultant chest surgeon, Kelling Sanatorium, who in his lecture on *Thoracic Surgery* traced the development of anaesthesia and described some of the conditions requiring thoracic surgery, illustrating his lecture with films, pictures and specimens.

Miss K. M. Allison, chairman of King's Lynn Branch and chairman at the afternoon session, introduced Dr. Barran, who spoke of the diagnosis of patients with pulmonary tuberculosis and the after-care and follow-up of patients after thoracic surgery. Several discharged patients attended the lecture as models to illustrate the talk. The members then visited Hardwick Hospital, the recently opened chest unit attached to West Norfolk and King's Lynn Hospital, where a clinical round was conducted by Dr. Barran.

In the evening a film, *Partial Gastrectomy for Carcinoma of the Stomach,* was well attended by nursing and medical staff.

Hitchin Branch

Hitchin and District Branch celebrated their first year as a full Branch with a dance held at the Sun Hotel, Hitchin. Lady Ashley Cooper, president, received the members and guests, among whom were Miss Twibell, matron of the London Chest Hospital (Country Branch); Mr. Brown, house governor of the London Chest Hospital, and Miss C. M. Jenkins, matron of the Hitchin Hospitals.

Left: *at the dance held by Hitchin Branch. Left to right: Mr. Brown, Miss Twibell, Miss C. M. Jenkins and Lady Ashley Cooper.*

Glasgow Events

The annual outing of the Glasgow Branch took place on May 14. Thirty-seven members enjoyed a visit to Crichton Royal Infirmary, Dumfries. Miss Houliston, matron, escorted the group through the beautiful grounds, wards and departments of the hospital and told them some of the history of its foundation. The return journey by way of the Dalvine Pass, Crawford and Abingdon completed a most interesting day.

On Sunday, May 15, a large group of members of the nursing profession from Glasgow and the West of Scotland attended a service of thanksgiving and dedication in Glasgow Cathedral. The Rev. Nevile Davidson, D.D., minister of the cathedral, preached the sermon. Miss Miller, president of the Glasgow Branch, and Miss Jean Paton, Western Infirmary, Glasgow, read the lessons. A group of Sunday School children, interested in becoming nurses, were brought by their teacher, herself a former nurse.

NURSES APPEAL

Nation's Fund for Nurses

We send our most grateful thanks to the donors who have helped this week. Please will those of you who are planning a short break at Whitsun remember those who are unable to get much change in their lives.

Important. It will be much appreciated if cheques for this fund could be made payable to the *Nurses Appeal Committee, Royal College of Nursing.*

Contributions for week ending May 21

		£	s.	d.
College Member 8668.	Money Box	1	0	0
College Member 8668	.. ..	1	0	0
Miss W. E. Steward.	*Monthly donation* ..		5	0

Total £2 5s.

E. F. INGLE,
Secretary, Nurses Appeal Committee, Royal College of Nursing, Henrietta Place, Cavendish Sq., London, W.1.

Nursery Matrons Conference

(*For picture see opposite page*)

A LIVELY conference of matrons of day and residential nurseries and nursery training course tutors was held at the Royal College of Nursing on Saturday, May 14. A number had travelled from distant parts of the country to attend and take part in the general discussion on matters of current interest which concluded the day's conference.

The theme of the day was *The Rights of the Child,* interpreted by the speakers at the morning session—Dr. W. H. S. Wallace, divisional medical officer, London County Council, and Miss Dorothy Case, matron, Cowley Day Nursery, Brixton Road, London—as rather the responsibilities of the parents. During the afternoon Mr. Edward Fuller, general editor, Save the Children Fund, gave an informative address on the history and work of the Fund and its relationship with other international organizations for the welfare of children throughout the world. Questions and discussion arose after each paper and it was proposed that an investigation into the needs of mothers and their young children should be carried out so that the contribution to be made by nurseries could be assessed. (A full report will appear later.)

A group of members, guests and speakers who attended the nursery matrons conference. *(See previous page.)*

Nursing Times Tennis Tournament

Preliminary Round

ST. JOHN'S AND ST. ELIZABETH'S HOSPITAL beat COPPETTS WOOD HOSPITAL. A. 6-3, 6-2, 6-3; B. 6-4, 6-2. Teams. St. John's and St. Elizabeth's: A. Misses Cath and O'Brien; B. Misses Gately and Carus Smith. Coppetts Wood: A. Misses Cook and Everus; B.—

First Round

WEST MIDDLESEX HOSPITAL beat ST. ALFEGE'S HOSPITAL. A. 6-1, 6-1, 6-2; B. 6-4, 6-1. Teams. West Middlesex: A. Misses Rowell and Seaney; B. Miss McKay and Horsford. St. Alfege's: A. Misses Foster and Hughes; B. Misses Brown and Mansfield.

ST. THOMAS' HOSPITAL beat QUEEN CHARLOTTE'S HOSPITAL. A. 6-0, 6-0, 6-1; B. 6-1, 6-0. Teams. St. Thomas': A. Misses Bunney and Crew; B. Misses Parlbey and Goodwin. Queen Charlotte's: A. Misses Yates and Caldwell; B. Misses Winter and Burdett.

KING GEORGE HOSPITAL beat RUSH GREEN HOSPITAL. A. 6-1, 7-5, 4-6; B. 6-1, 6-0. Teams. King George: A. Misses Macdonald and Burke; B. Misses Oxford and Anthon. Rush Green: A. Misses Reading and Lederer; B. Misses Tate and Boxall.

GUY'S HOSPITAL beat St. MARY ABBOT'S HOSPITAL. A. 6-1, 6-0, 6-0; B. 6-2, 6-2. Teams. Guy's: A. Misses Bone and Ryan; B. Misses Collier and Richmond. St. Mary Abbot's: A. Misses Green and Herzberg; B. Misses Molloy and Griffiths.

ST. GEORGE'S HOSPITAL beat ST. MARGARET'S HOSPITAL. A. 6-1, 6-1, 6-1; B. 6-1, 6-0, 6-1. Teams. St. George's: A. Misses Evans and Gilbert; B. Misses Dyer and Dean. St. Margaret's: A. Misses Thomas and Sutton; B. Misses Warner and Osborne.

ST. BARTHOLOMEW'S HOSPITAL beat THE ROYAL MASONIC HOSPITAL. A. 6-2, 1-6, 6-2. B. 6-3, 6-3. Teams. St. Bartholomew's: A. Misses Funnell and Bicknell. B. Misses Phillips and Simpson. The Royal Masonic: A. Misses Viney and Kimber. B. Misses Broadben and Ricketts.

KING EDWARD MEMORIAL HOSPITAL beat QUEEN ELIZABETH HOSPITAL FOR CHILDREN. A. 6-4, 6-3, 6-0; B. 6-2, 2-6, 0-6. Teams. King Edward Memorial: A. Misses Pheby and Millar; B. Misses Barnes and Lynch. Queen Elizabeth: A. Misses Brace and Wright; B. Misses Cole and Walby.

WESTMINSTER HOSPITAL beat BEXLEY HOSPITAL. A. 6-1, 6-0, 6-1; B. 6-4, 6-1. Teams. Westminster: A. Misses Raven and Hopkins; B. Misses Powell and Thomas. Bexley: A. Misses Brace and Wolfe; B. Misses Nelson and Wallace.

LEWISHAM HOSPITAL beat CLAYBURY HOSPITAL. A. 9-7, 6-3, 6-0; B. 6-3, 6-4. Teams. Lewisham: A. Misses Preece and Harris; B. Misses Bunn and Gooding. Claybury: A. Misses Gosnell and Darley; B. Misses Hammarton and Malby.

BANSTEAD HOSPITAL beat WESTMINSTER CHILDREN'S HOSPITAL. A. 6-3, 6-4, 6-1; B. 3-6, 6-1, 4-6. Teams. Banstead: A. Misses Morris and Wellyard; B. Misses Cook and Brocklebank. Westminster Children's: A. Misses White and Ambrose; B. Misses Carter and Hardman.

COMING EVENTS

Essex County Hospital, Colchester, Nurses' League.—The annual general meeting and reunion will be held on Saturday, June 25, at 2.30 p.m.

Joyce Green Hospital, Dartford, Kent.—The annual reunion and prizegiving will take place on Saturday, June 11. Tea at 4 p.m. followed by prizegiving at 5 p.m. by Miss Pat Hornsby-Smith. All former members of the staff are cordially invited. R.S.V.P. to matron.

Mile End Hospital.—The annual prizegiving and reunion will be held on Tuesday, June 21, at 2.30 p.m. All former trainees and staff are invited— no other invitation is necessary. R.S.V.P. to matron.

Queen's Institute of District Nursing.—An autumn school on *The Contribution of the District Nurse in meeting the Total Needs of Patients*, open to all State-registered district nurses, will be held at Keble College, Oxford, from September 12-19. Applications are being dealt with in strict rotation. Apply to the Education Officer of the Institute at 57, Lower Belgrave Street, London, S.W.1.

Rush Green Hospital, Romford Essex.—The annual prizegiving and reunion will be held on Thursday, June 23, at 3 p.m. Sir Joseph D. Qualtrough, Speaker of the House of Keys, will present the awards. There will be a dance from 9 p.m. till 1 a.m. in the Nurses Home. Ex-members of the staff are invited. R.S.V.P. to matron.

South Shields General Hospital.—The nurses' annual reunion will be held on Saturday, July 2, at 3 p.m. All former members of the staff are cordially invited. R.S.V.P. to matron by June 24.

Southmead Hospital, Westbury-on-Trym, Bristol.—The reunion will be held at the hospital on Saturday, June 11, at 2.30 p.m. There will be a service in the chapel at 3 p.m., followed by a meeting and tea; a dance will be held in the evening.

National Council for the Unmarried Mother and her Child

A five-minute trailer depicting the work of the Council will be shown at Derby Gaumont, Nottingham Odeon, Coventry Gaumont, Wolverhampton Odeon, Hanley Gaumont and Dudley Odeon during the week beginning June 20. Collections to help the work of the Council are being organized by the cinema managements, who would be grateful for offers of help.

REHABILITATION OF THE HANDICAPPED: British Council for Rehabilitation

A TWO-DAY course on *Rehabilitation of the Handicapped* will be held under the joint auspices of the British Council for Rehabilitation and the University of Manchester at the Reynolds Hall, College of Technology, Sackville Street, Manchester 1, on Monday and Tuesday, June 6 and 7. The object of the course will be to examine the extent to which various disabilities are, or are not, an obstacle to subsequent re-absorption into industry.

Fees: £1 7s. 6d. Daily sessional fee, 17s. 6d.

Correspondence should be addressed to the General Secretary of the Council, Tavistock House South, Tavistock Square, W.C.1.

Monday, June 6

9.30 a.m.—12.30 p.m. *The Link between Hospital and Industry.*

Chairman: Col. Sir Francis Gidlow Jackson.

J. K. Wright, F.R.C.S., lecturer in orthopaedic surgery, University of Manchester—*Hospital Rehabilitation.* C. T. Newnham, M.R.C.S., L.R.C.P., D.O.M.S., regional medical officer, British Railways, Western Region—*Industrial Rehabilitation.*

2.30 p.m.—5.30 p.m. *The Deaf.*

Chairman: T. J. Watson, M.C., M.A., Ph.D., senior lecturer, Department of Education of the Deaf.

Professor A. W. G. Ewing, Ph.D., director, Department of Education of the Deaf, University of Manchester—*The Rehabilitation of the Deafened.* H. Whitton, B.A., principal, Royal Residential Schools for the Deaf, Manchester—*Occupational Welfare of the Deaf.*

Tuesday, June 7

9.30 a.m.—12.30 p.m. *The Gastric and Cardiac Problems.*

Chairman: R. S. F. Schilling, M.D. M.R.C.S., L.R.C.P., D.P.H., D.I.H., reader, Department of Occupational Health, University of Manchester.

Professor R. E. Lane, M.D., F.R.C.P., Nuffield Professor of Occupational Health, University of Manchester—*The Gastric Problem.* E. G. Wade, M.B., Ch.B., M.R.C.P., consultant physician, Department of Cardiology, Manchester Royal Infirmary—*The Cardiac Disabled.*

2.30 p.m.—5.30 p.m. Chairman: J. L. Burn, M.D., D.Hy., D.P.H., medical officer of health, Salford.

F. S. Cooksey, O.B.E., M.D., Department of Physical Medicine, King's College Hospital, London—*The Disabled Housewife.* A. Ryan, F.P.A.S., chief welfare officer, City of Manchester—*The Local Authority Disablement Services.*